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ABSTRACT

This instructional guide is written for junior/senior high school art teachers as an aid to teaching an elective visual arts course. The guide consists of 10 units, each with instructional objectives further defined through suggested performance objectives. Some performance objectives provide specific student activities to assist teacher planning. Each performance objective contains suggestions for instruction, assessment measures, and instructional materials. All of the sample lessons can be modified to accommodate varied student needs and interests. The lessons include drawing, design, painting,crafts, commercial art, printmaking, sculpture, environmental design, photography, and film/television. Six appendices include: (1) curriculum design; (2) suggested guidelines for art class critiques; (3) outstanding artists (women, Native American, and Afro-American); (4) general health and safety procedures; (5) a coding chart; and (6) art activities supporting the teaching of reading. (TRS)

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FUNDAMENTALS OF ART

INSTRUCTIONAL GUIDE

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Grades 9-12

Montgomery County Public Schools
Rockville, Maryland

Instructional Guide
for
Fundamentals of Art

1986

Department of Aesthetic Education
Montgomery County Public Schools
Rockville, Maryland

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Rockville, Maryland

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Acknowledgments

The course structure and the content of Fundamentals of Art were developed by several teams of art teachers during summer workshops. Included among the writers in these sessions were John Bledsoe, Helen Crown, Mildred Doud, Lee Klop, Linda Kozak, Dan O'Boyle, and Barbara Timmons. Between the writing sessions, groups of teachers reviewed drafts of the course objectives and sample units at countywide meetings. The contributions of all who wrote or reviewed this material are appreciated. Emil Hrebenach, coordinator of Secondary Art, coordinated the writing and edited the content.

Introduction

The visual arts, as presented in the MCPS art education program, relate to people, their cultures, and their environments. The students' sensory and intellectual explorations of cultures and environments help them develop aesthetic awareness, critical thought, and cultural understanding.

This instructional guide was written for junior/senior high school art teachers as an aid toward attaining the instructional objectives prescribed for Fundamentals of Art in the *Program of Studies.* Fundamentals of Art provides instruction in a wide range of art concepts that will lead to a better understanding of art and its history. The content of this course is based on criteria established in the Maryland State Department of Education framework for art education. Successful completion of Fundamentals of Art will provide credit toward the graduation requirement in fine arts.

This guide consists of a sequence of units, each with instructional objectives based on a set of concepts appropriate to the unit. These concepts are translated into instructional objectives, and then further defined through suggested performance objectives. Some of these performance objectives are illustrated in order to provide the teacher with well-planned activities. All of the sample lessons, as well as the suggested performance objectives, can be modified to accommodate the varied needs and interests of students.

The instructional materials needed to carry out these units of instruction are generally available from the MCPS warehouse, but additional resources may be purchased from other vendors. The bibliography lists approved MCPS library books as well as teacher reference books. A collection of art reproductions, filmstrips, and slides is essential to presenting the concepts. A well-planned instructional program should also include field trips and outdoor activities designed to support the development of concepts related to art history and design.

Although most instruction is designed for the typical student, the teacher should accommodate the needs of both the handicapped and the gifted student. The classroom should be adjusted to allow for individual and group needs. It is imperative that safety be given constant consideration and that teachers adhere to the MCPS policy on the use of hazardous tools and materials, as outlined in the Montgomery County Public Schools *Safety Handbook,* revised edition.

This outline of units is intended to serve as a guide to teachers in preparing to teach this elective art course. The course has been organized around a series of instructional objectives as prescribed in the *Program of Studies,* and it enlarges upon the concepts presented in the seventh and eighth grades. The sample instructional units described may be expanded, combined, or refined to accommodate several instructional objectives. Teachers are encouraged to develop other performance objectives, along with appropriate methods of instruction and assessment, which would meet the needs of several levels of student ability. The suggested performance objectives should be adapted to classroom situations. Activities should provide instruction for all levels of students.

In art education, the development of aesthetic awareness, critical thought, and cultural understanding share equal importance with art-making experiences. Students can develop an appreciation for art by becoming more aware of their own art styles and by recognizing that their cultural heritage includes the art of many ethnic groups. By comparing various art forms, styles, and movements, the student learns to make critical judgments about the quality of the work. In understanding the artists' place in history, the student experiences a greater awareness of the individual's place in time and in society.

Some students anticipate careers in art or in art-related fields, but all students need to develop cultural interests and acquire a sense of responsibility for an aesthetic environment. Through art education, students should develop an openness to new ways of seeing and thinking that will enable them to better appreciate all forms of visual art.

Overview

At any level, art education helps students develop skills of observation, production, evaluation, and appreciation. The Fundamentals of Art course explores a range of art forms and develops a conceptual basis for further study. A major goal of this course is to provide opportunities for students of all abilities, backgrounds, and interests to succeed and grow in their understanding of art. To help accomplish this, each unit should provide optional learning activities and opportunities for group interaction along with the planned sequence of instruction. Art production, art criticism, art history, creative expression, cultural awareness, and problem solving are included as foundations for the development of a sensitivity that will help students make critical aesthetic judgments. In addition, students should become aware of career opportunities in the visual arts, recognize responsibility for the environment, and learn about the impact of society and technology on art.

The studio art lessons given in Fundamentals of Art A and B will include several forms of fine art, one or more crafts, and at least two forms of commercial art. Four general objectives related to design, art heritage, art careers, and art-related health and safety are incorporated throughout the courses.

Fundamentals of Art A and B are basic elective courses offered to all students in Grades 9-12, and they are listed in Category 1 of the basic core of courses for senior high schools. Semester A is not a prerequisite to Semester B, but the successful completion of Fundamentals of Art A or B is a prerequisite to Commercial Art I and Studio Art I. The difference between Semesters A and B is in the art forms studied. Semester A includes drawing and design, painting, craft, and commercial design. Semester B includes printmaking, sculpture, environmental design and visual communication. Art history and art criticism skills and concepts are integrated into each unit. Generally, instruction will focus on three types of processes—the design process, the production process, and the process of critical analysis.

The time constraints of the 18-week semester will require careful planning and flexibility. An average of 20 periods of class time is suggested for each unit; however, consideration must be given to the resources available and the ability or interest level of the students. The unit on photography, television, and filmmaking represents a new area of focus for this course and is intended to introduce some basic concepts related to those significant areas of the visual arts. The suggested performance objectives were designed for implementation with minimal requirements for equipment or facilities. The school media specialist and technical assistant may provide valuable resources in this area.

The units described in this guide are designed to meet the course expectancies listed in the *Program of Studies*. The lists of suggested performance objectives given for each unit are a small sample of possible objectives. Teachers are encouraged to select from and expand upon the lists of activities and to provide resources to accommodate individual needs. The sample lessons refer to books and other resources that are annotated for teacher or student use in the bibliography. In utilizing this guide, it is recommended that the teacher use the *Art Concepts and Activities Bank* for additional lessons that support these instructional objectives. Teachers are also encouraged to refer to other MCPS instructional guides for additional support. Helpful information is available in *A Survey of World Art, Twentieth Century Art and Architecture, Commercial Art, Environmental Design,* and *Visual Art Instructional Guide, Grades 7 and 8.*

Maryland State Department of Education
Goals, Objectives, and Expectancies for Art Education
Grades 9-12

Goal I: *To develop, through the visual arts, the ability to perceive and respond to ideas, experiences, and the environment.*

A. Develop an awareness that visual form and other phenomena affect perception.
   Learn to identify and name selected aspects of visual form and how changes in them affect one's perception.

B. Develop an understanding of how visual art is created as a response to images, forms, and experience.
   Learn to recognize how visual art may express a concept, tell a story, evoke a mood or emotion, symbolize an idea.

C. Develop comprehension of design concepts in works of art and in the environment.
   Learn to identify the elements of art and design principles and their relationships to one another.

Goal II: *To develop an understanding of the visual arts as a basic aspect of history and human experience.*

A. Develop the ability to recognize the visual arts as forms of cultural expression.
   Learn how visual art reflects social, political, and ethical issues of individuals and society.

B. Develop an understanding of the relationships among works of art, individuals, and societies in which they are created.
   Learn factors which influence artists in specific historical eras and places.

C. Develop an understanding and appreciation of the diversity and idiosyncratic quality of individual artistic expression.
   Learn to analyze and classify artists by their styles, subject matter, techniques, etc.

D. Develop a comprehension of how the visual arts interrelate with other forms of human creativity, such as the humanities and the sciences.
   Learn to identify the relationships between problem-solving in art and in the humanities and sciences.

Goal III: *To develop and organize knowledge and ideas for expression in the production of art.*

A. Develop coordination and skills for using art tools, materials, and techniques.
   Learn to identify, classify, and select the appropriate tools, materials, and techniques for making art.

B. Develop the ability to create visual images.
   Learn to create images based upon observed and imagined experiences.

C. Develop the ability to utilize design concepts for visual expression.
   Learn to apply the elements of art for purposes of planning and executing a visual composition.

D. Develop an understanding of health and safety rules in the art classroom.
   Learn to take adequate measures for the protection of eyes, face, skin, etc., when working in art.

Goal IV: *To develop the ability to identify, analyze, and apply criteria for making visual aesthetic judgments.*

A. Develop an understanding of the aesthetic qualities which exist in both natural and human-made environments.
   Learn to describe and interpret the aesthetic quality of a visual form through the use of design concepts.

B. Develop the skills and sensitivity to apply aesthetic criteria to works of art.
   Learn to focus upon and emphasize the distinctive aesthetic contributions of various cultural forms.

C. Develop the ability to identify, describe, apply, and communicate personal criteria for assessing one's own work.
   Learn to apply and communicate personal aesthetic criteria.

Program of Studies Description

Revised June 1981
Art, Grades 9-12

Fundamentals of Art

(Linking number for Fundamentals of Art A and B: 6050)

The studio art lessons given in these courses will include several forms of **fine art**, one or more **crafts**, and at least two forms of **commercial art**. Lessons and activities will provide information about sources of design, our art heritage, and art careers. Exercises in which designs and works of art are studied will help students better understand and appreciate art styles and applied designs.

Fundamentals of Art A and B are basic elective courses offered to students in Grades 9-12, and they are listed in Category 1 of the Basic Core of Courses for senior high schools. Successful completion of Fundamentals of Art A or B is a prerequisite to Commercial Art and Studio Art 1. Semester A is not prerequisite to Semester B, and either semester may be taken by a student any time during Grades 9-12.

The difference between Semesters A and B is in the art forms studied. Semester A will include drawing, painting, crafts, and commercial design. Semester B will include printmaking, sculpture, environmental design, and visual communication.

Fundamentals of Art A

6055 (Basic Core Category 1)

1 semester

1/2 credit

Instruction will be given in drawing, painting, a creative craft, and commercial design. Students will be given some options in selecting media and subject matter. An opportunity to exhibit art work will be available.

Upon completion of the Fundamentals of Art A course, the student should be able to:

- demonstrate **drawing** and design techniques utilizing natural and other forms and emphasizing the depiction of **mass, volume**, and **space**
- distinguish between various forms of balance and color harmony in realistic, abstract, and nonobjective **paintings**, and demonstrate one painting style
- compare traditional and contemporary **craft** styles by demonstrating a craft technique in fiber, metal, wood, paper, or clay
- identify the skills required for a career in **commercial art** by producing an example of graphic design or industrial design
- identify **sources of design** in nature and use one of several design structures or systems in a work of art or craft
- identify works of art and craft that are representative of various **cultures** or **ethnic** groups, and name their characteristic features
- demonstrate the ability to analyze the art or design of an **historical period**, and make evaluative statements
- identify **health and safety precautions** related to the art and craft processes studied

Fundamentals of Art B

6056 (Basic Core Category 1)

1 semester

1/2 credit

Instruction will be given in printmaking, sculpture, environmental design, and some form of visual communication. Students may, at times, select media and subject matter for their art work. Students may also participate in a planned art show.

Upon completion of the Fundamentals of Art B course, the student should be able to:

- demonstrate an awareness of positive/negative space in a work of art by designing a relief or **stencil print**
- identify the compositional and expressive elements in representational and abstract **sculpture**, and create an example of either one
- analyze **architecture** and **environmental design** in a natural, technological, historical, and/or social context by making a project
- describe and/or demonstrate the influence of **photography, filmmaking**, and **television processes** on the visual arts
- identify sources of design in nature, and use one of several design structures or systems in a work of art or craft
- identify works of art and craft that are representative of various cultures or ethnic groups, and name their characteristic features
- demonstrate the ability to analyze the art or design of a historic period, and make evaluative statements
- identify health and safety precautions related to the art and craft processes studied

Drawing

Concepts

Drawings are made for many reasons. We assume that ancient cave drawings were made to record major events associated with nature. Painters, sculptors, and craftsmen draw to develop and refine their ideas about a subject or object. The commercial artist draws to enhance a written statement, convey a message, or decorate a surface. Graffitti often include drawings that are intended to communicate personal or social concerns. Drawing has been a visual form of expression throughout history.

Drawing is concerned with all the elements of art, including, at times, color. Line, however, is the major component from which shape, texture, value, and form evolve. The continuous line of contour and gesture drawing can be used to quickly emphasize mass, volume, and space. The weight and character of a drawn line will enhance or affect the appearance of a form. Through drawing, the elements of line, form, and texture can be composed to create spatial relationships and illusions of form. Linear perspective is a systematic mechanical process used to record three-dimensional forms on a two-dimensional surface.

The following performance objectives and activities are intended as brief, continuing exercises that are enriched throughout the course. The student should be encouraged to think of drawing as a means of learning to see and as a way in which to react to the world around him/her. Therefore, the drawings created during this unit are not to be considered as end products, but as the natural results of experiencing and experimenting with materials and ideas.

Instructional Objective

Demonstrate drawing and design techniques utilizing natural or other forms and emphasizing the depiction of mass, volume, and space.

Suggested Performance Objectives

Use gesture drawing techniques to graphically demonstrate the wholeness of an object or form.*

Use contour drawing as a means of mentally feeling the form of an object.*

Use line variation in relating form to space.*

Depict negative space as positive space in a drawing.*

Use light and shadow in unifying forms and space in a drawing.*

---

* Sample lessons are provided.

Demonstrate a method of unifying pictorial space in terms of movement.*

Demonstrate Impressionism as a style and as a point of view in drawing.*

Demonstrate the use of exaggeration and distortion in search of more expressive statements in drawing.*

Identify and describe the drawing style of one artist of the nineteenth or twentieth century.*

Demonstrate a knowledge of gesture drawing techniques.*

Demonstrate a technique for depicting kinesthetic action.*

Use light and shade modeling to depict weight and volume in a drawing.*

Use line and texture to express mass and volume in natural forms such as driftwood fragments and seashells.*

Draw an enlarged segment of a natural form stressing mass and volume.*

Use a variety of tools and materials to achieve different techniques in representing mass, volume, and space.*

Identify lineal qualities and group a set of representative drawings accordingly.*

Use contour drawing as a means of expressing mass and volume.

Develop eye-hand coordination in contour drawing. (DR-23)

Use variations in the weight of a line to show movement and volume in plant forms.

Draw negative space as positive forms.

Draw an illusion of form using a controlled light source on an object.

Compose several views of hands rendered with light and shade.

Produce a high contrast drawing. (DR-21)

Make a drawing with a bristle brush depicting only texture to express mass and volume.

Demonstrate the use of one- and two-point perspective by drawing simple geometric forms in space.

Draw a large object using one- or two-point perspective.

Create a design abstracted from a natural object. (DR-32)

Compare techniques used by Western, Oriental, and Near Eastern artists to depict space within a composition.

Make a page of figure drawings from student models stressing mass, volume and space to analyze facial and figure structure through abstraction (DR-41).

Sample Units

Performance Objective

Use gesture drawing techniques to graphically demonstrate the wholeness of an object or form.

Suggestions for Instruction

Obtain or prepare examples of gesture drawing using different media, e.g., charcoal, pencil, felt pen, and crayon. Show these and examples from Nicolaides' *The Natural Way to Draw,* pp. 15-19, 46, 47, 160, 161, 194, and 195, as well as Goldstein's *The Art of Responsive Drawing,* pp. 4-5. As you model, have students do a 30-second gesture drawing that captures the basic movement of the pose. Point out successful results and give reasons for your selection. Repeat the exercise for the rest of the class period.

Have students take turns modeling for gesture drawing. Have them do gesture drawings from objects or from landscape. Vary the subject and media each day. Increase the drawing time from 30 seconds to 10 minutes over the first 2 weeks. Have students do as many drawings per half-period as possible. For the other half-period see next objective.

Assessment Measures

Student work is critiqued in terms of:

- basic feeling of pose (Does the figure look as if it is sitting or standing naturally?)
- looseness and spontaneity of drawings
- sensitivity to materials
- use of entire drawing space

Instructional Materials

Books:

Goldstein, Nathan. *The Art of Responsive Drawing.*

Nicolaides, Kimon. *The Natural Way to Draw.*

Other Resources:

Teacher-prepared examples of gesture drawings.

Performance Objective

Use contour drawing as a means of mentally feeling the form of an object.

Suggestions for Instruction

Demonstrate and show examples of different types of contour drawing. Refer to Nicolaides' *The Natural Way to Draw,* pp. 8, 10, 15, 76, and 77. Also show the film *Introduction to Contour Drawing,* F-4455.

Have the students begin drawing something simple and close. Vary the subject matter and increase the time limit from 5 minutes to 30 minutes

NOTE: The DR number following an objective refers to the drawing section of the *Art Concepts and Activities Bank.*

*Sample lessons are provided.

over a 2-week period. (Alternate with gesture drawing.)

If students have a tendency to fall back on sketchy technique, have them draw with the other hand.

Do not push for the completion of drawings; instead stress the need to experience and sense the volume of the object.

Assessment Measures

Assess student's ability to focus on the object's contour during the exercise.

Suggested Criteria

To what extent:

- Does the contour line feel the form?
- Is the line quality even?
- Has the line been drawn too fast or too slow?
- Has the whole drawing space been used?
- Has the allotted time been used?

Instructional Materials

Book:

Nicolaides, Kimon. *The Natural Way to Draw.*

MCPS Film:

F-4455 *Introduction to Contour Drawing.*

Filmstrip:

"Drawing People."

Other Resources:

Teacher-prepared examples of contour drawings.

Performance Objective

Use line variation in relating form to space.

Suggestions for Instruction

Demonstrate drawing from a simple object like a still life bottle. Vary the thickness of the line in response to the feeling of depth in the object. Do not use shading. In some places, the line may disappear totally.

Show examples of drawings, using reproductions by Rembrandt, Rubens, and Fragonard. See page 175 of *The Natural Way to Draw* for a good example by El Greco, and page 3 of *The Art of Responsive Drawing* for an example by Rembrandt.

Have students work from a simple object. Limit drawing time to ten minutes.

As students acquire an understanding of the objective, introduce subject matter such as parts of the body, more complicated objects, and groups of objects. Ask students to define their drawing area with a border line before drawing. See examples in *The Art of Responsive Drawing.*

Periodically hold group critiques. In the first critique demonstrate how to compare and evaluate drawings based on the criteria established for the problem. Line variation and a mental feel of the form of the object merging into the pictorial space are important. Discourage general remarks that are not based on critical observation, such as "I like it" or "It looks real."

Assessment Measures

Since this is a continuing process of developing the abilities of students to perceive and react to form, assessments should be made at regular intervals and should stress positive results. Criteria should center on line variation and the use of line to feel the form of the object as it exists in space. In addition, the effective use of the whole drawing area and the student's sensitivity to media should be considered.

Instructional Materials

Books:

Goldstein, Nathan. *The Art of Responsive Drawing.*

Nicolaides, Kimon. *The Natural Way to Draw.*

Schickel, Richard. *The World of Goya.* (Use for reproductions.)

Wallace, Robert. *The World of Rembrandt.* (Use for reproductions.)

Wedgwood, Cicely V. *The World of Rubens.* (Use for reproductions.)

Filmstrip:

"Basic Drawing: Drawing with Line."

Performance Objective

Use light and shade modeling to depict weight and volume in a drawing.

Suggestions for Instruction

Refer to Nicolaides, pp. 36 and 37. Demonstrate the process and show examples of this technique.

Using student models in a simple standing pose, have students draw for 10 to 20 minutes at first. Then arrange longer poses using seated models. Use crayon and/or conte crayon.

Conduct group critiques of drawings.

Assessment Measures

Suggested Criteria

To what extent do students demonstrate:

- Sensitivity to lights and darks in drawing to interpret volume and weight?
- Sensitivity to the potential and limitation of media?
- Effective use of drawing area?

Instructional Materials

Book:

Nicolaides, Kimon. *The Natural Way to Draw.*

Performance Objective

Depict negative space as positive space in a drawing.

Suggestions for Instruction

Show examples from Nicolaides, p. 37. In the Watteau drawing, the dark area on the left establishes a positive position in space. Also study drawings by Degas, pp. 15 and 26, and by Wilitchew, p. 230 in *The Art of Responsive Drawing.*

Pose the model for 20 minutes while students start with light gesture drawing that fills the space as in Nicolaides, page 160 (right-hand side of page). Then have students work more carefully with definite negative spaces that are formed by the arms, legs,

and contours of figure. See *The Art of Responsive Drawing*, p. 22, illustration 2.8.

Vary the activity by having students draw, with contour technique, the shapes between objects in a still life (30 minutes). The form of the object is revealed by the shapes around it.

Show an example of a Seurat drawing, *The Natural Way to Draw*, p. 90. Have students tone the whole paper lightly with the side of a black crayon on textured white paper. They then draw a figure and continue using the side of the crayon to gradually darken the negative spaces. The contour of the figure should be approached gradually during 40- to 50-minute work period.

Assessment Measures

Suggested criteria

To what extent:

- Is the negative space seen as supporting the object form?
- Does the negative space become positive in relation to object form?
- Is the whole space developed?
- Is there evidence of sensitivity to media?

Instructional Materials

Books:

Goldstein, Nathan. *The Art of Responsive Drawing.*
Nicolaides, Kimon. *The Natural Way to Draw.*

Other Resources:

Teacher-prepared examples as needed.
Examples of Seurat drawings.

Performance Objective

Use light and shadow in unifying forms and space in a drawing.

Suggestions for Instruction

Have students draw from a section of a complicated still life which has been spotlighted for maximum contrast of dark and light areas. Students should use black and white chalk on gray paper and border the paper with a light line to define the working space. Have students begin drawing with the side of the chalk to establish large areas of darks and lights, using the point of chalk only to intensify and sharpen lights and darks. The objects will become submerged in the flow of light and dark. Drawing should last 45 minutes.

After the first drawing, critique student work and compare it with drawing reproductions of Rembrandt, El Greco, Carravaggio, and Rubens. Point out the flow from one object to another and the way the whole is organized by lights and darks.

Then have students work on studies from figure and landscape using different media such as charcoal and kneaded erasure on white vellum. Have them saturate the space with dark and vary this approach with white chalk on gray or black paper. The idea is to develop a sustained study in connection with perceiving lights and darks.

Assessment Measures

Suggested Criteria

To what extent:

- Do lights and darks destroy the wholeness of objects?
- Do drawings reflect a loose and responsive use of media?
- Are lights and darks accurately perceived in relation to still-life forms?

Instructional Materials

Book:

Goldstein, Nathan. *The Art of Responsive Drawing.*

Other Resources:

Examples of drawings by Rembrandt, El Greco, and Carravaggio.
Teacher-prepared examples as needed.

Performance Objective

Demonstrate a method of unifying pictorial space in terms of movement.

Suggestions for Instruction

Refer to section 19, *The Natural Way to Draw.* Contrasting straight and curved lines, have students do quick exercises from a model. Demonstrate the way to find and alternate curved and straight lines in the figure.

Study reproductions of Renaissance, Baroque, and Rococo paintings for movement of line and form. (Section 20, *The Natural Way to Draw,* has good exercises and illustrations.) Have students do small-scale gesture drawings that capture the flow of form through the reproduction.

The previous exercises will develop into larger studies from still life or still life and figure.

Students should select lines from the "source" in response to the need for straight or curved lines in the drawing. The lines should move the eye through the entire space. Concentrate first on surface movement. Later exercises can integrate this with movement in depth.

Have students do extended drawing from still life or landscapes that incorporate the idea of movement with the use of lights and darks. The drawing should take at least three class periods and can be used as a culminating activity.

Give students a choice of materials.

Assessment Measures

Suggested Criteria

To what extent:

- Is the student using the medium effectively?
- Does the drawing reveal a careful study of the subject being drawn?
- Is the drawing organized in terms of movement through the pictorial space?

Hold a final group critique using these critera.

Instructional Materials

Books:

Coughlan, Robert. *The World of Michelangelo.* (Use for reproductions.)

Goldstein, Nathan. *The Art of Responsive Drawing.*
Hill, Edward. *The Language of Drawing.*
Nicolaides, Kimon. *The Natural Way to Draw.*
Pitz, Henry. *Ink Drawing Techniques.*
Schickel, Richard. *The World of Goya.* (Use for reproductions.)
Wallace, Robert. *The World of Rembrandt.* (Use for reproductions.)
Wedgwood, Cicely V. *The World of Rubens.* (Use for reproductions.)
Wertenbaker, Lael. *The World of Picasso.* (Use for reproductions.)

Performance Objective

Demonstrate Impressionism as a style and as a point of view in drawing.

Suggestions for Instruction

Display large reproductions of Impressionist paintings and drawings. Point out and describe the following qualities: (1) importance of surface texture; (2) subject matter submerged in spatial unity; (3) "unfinished" yet resolved appearance. Also point out the following ways of working: (1) drawing directly from subject; (2) visually reacting to sensations of light; (3) sensitivity to medium; (4) evolving the whole surface gradually and stopping when the space and subject merge in a total impression.

Have students make two large (18" x 24") drawings from still life, figure, or landscape using crayon, charcoal, conté, or soft black pencil.

Allow two weeks for the assignment. Encourage students to make quick thumbnail drawings in order to make sure the vantage point selected is of sufficient interest; however, do not insist that students do this.

Assessment Measures

Hold a group critique at the end of each week, regardless of whether drawings are finished. If possible, select one student from volunteers to lead the critique.

Suggested Criteria

Unity through surface texture
Subject submerged in spatial unity
Effective use of the medium
The whole drawing appears to be in a state of emerging.

Instructional Materials

Book:
Hill, Edward. *The Language of Drawing.*

Performance Objective

Demonstrate the use of exaggeration and distortion in search of more expressive statements in drawing.

Suggestions for Instruction

Show slides or reproductions of figurative paintings and drawings by such artists as El Greco, Matisse (Fauve period), Picasso, Modigliani, Munch, and Kollwitz. Through questions and answers, point out instances of distortion for spatial organization as well as for emotional effect. Review concepts that deal with spatial organization through gesture and movement.

Define the problem as stated in the objective. Have students work from a model in class or outside the classroom. In either case the final drawing will be done in class. Have students begin by making several small contour drawings and gesture drawings to get the feel of the form and the mood of the subject. One or more of these quick drawings could become the basis for the final drawing. Students should make separate thumbnail drawings that explore possible distortions and exaggerations that help organize the space. Final drawings should be on large (18" x 24") paper using any medium. Allow one and a half to two weeks for this assignment.

Assessment Measures

Suggested Criteria

Does the drawing work as a composition?
Does the distortion help the composition?
Has the integrity of the medium been maintained?
Is the drawing expressive of the subject and/or of the feelings of the artist?

Instructional Materials

Use Shorewood Reproductions as available.

Performance Objective

Identify and describe the drawing style of one artist of the nineteenth or twentieth century.

Suggestions for Instruction

Display a list of artists whose life and work are easily researched and whose works include considerable numbers of drawings. Include artists such Goya, Daumier, Ingres, Delacroix, Degas, Cézanne, Seurat, Matisse, Klee, and Kollwitz. Select an area in the classroom where reproductions of their work can be displayed and where books can be read to find examples and information.

Have students select one artist and prepare a paper that addresses these considerations:

- point of view or approach to seeing
- style and handling of media
- subject matter use in relation to treatment of space
- major influences on the life of the artist, plus basic where/when facts

The first three items can be researched by analyzing drawings and by making four or five thumbnail drawings.

Have students do larger final drawing(s) based on the point of view and the means of dealing with pictorial space but not the "style" of the artist. The drawing should be done from a model, still life, a landscape, or personal experiences of the student rather than from photographs or reproductions.

Have students display their work and give oral reports on information researched about the artist.

Provide reproductions of original artists and conduct a group critique.

Reproductions and books on nineteenth and twentieth century painters are listed in the bibliography.

Assessment Measures

Conduct a group critique.

Suggested Criteria

To what extent:

- Is the approach to seeing similar to that of the original artist?
- Does the student's drawing reveal sensitivity to media concern for wholeness of composition?
- Does the student's drawing explore the same problems of spatial organization as did the artist?
- Does the student's drawing reflect his/her own personality or interpretation?

Instructional Materials

Books:

Murphy, Richard W. *The World of Cézanne.*
Russell, John. *The World of Matisse.*
Schickel, Richard. *The World of Goya.*
Wertenbaker, Lael. *The World of Picasso.*

Other Resources:

Examples of drawings by Klee, Seurat, and Van Gogh.

Performance Objective

Demonstrate a technique for depicting kinesthetic action.

Suggestions for Instruction

Display several Calder-type mobiles and ask students to create a drawing that reflects the shapes and spaces in the mobiles. Have students draw a mobile in their choice of media. Halt the activity at the end of ten minutes and compare the unfinished drawings. Display reproductions of drawings by Boccioni, Giacometti, and Cézanne and Duchamp's painting, *Nude Descending the Stair.*

Assessment Measures

In a group critique, compare student experiments with reproductions of drawings by Boccioni, Giacometti, Cézanne, and Duchamp.

Suggested Criteria

To what extent does student work show:

- Tentative quality of relationships among drawn forms and shapes?
- Loss of object integrity?
- Sensitivity to use of materials?
- Surface unity through repetition of line?

Instructional Materials

Books:

Kepes, Gyorgy. *Language of Vision.*
Moholy-Nagy, Laszlo. *Vision in Motion.*

Other Resources:

Shorewood Reproductions:
Boccioni. *Dynamism of a Cyclist.*
Duchamp. *Nude Descending No. 2.*

Performance Objective

Demonstrate a knowledge of gesture drawing techniques.

Suggestions for Instruction

Refer to section 19, *The Natural Way to Draw* by Nicolaides. Have students do quick exercises from a model, contrasting straight and curved lines. Demonstrate the way to find and alternate curved and straight lines in the figure. Students may understand this technique better if it is referred to as a controlled scribble.

Study reproductions of Renaissance, Baroque, and Rococo paintings for movement of line and form. *The Natural Way to Draw* has good exercises and illustrations. Have students do small-scale gesture drawings that capture the flow of movement through the composition.

The previous exercises will develop into larger studies from still life or still life and figure. Students should select lines from the "source" in response to the need for straight or curved lines in the drawing. The lines should move the eye through the entire space. Concentrate first on surface movement. Later exercises can integrate this with movement in depth.

Use Reinhold Visuals, Portfolio 1, *Line.* Compare Honoré Daumier's *The Clown* with Henry Moore's *Studies for Stone Sculpture.*

Have students do extended drawings from still life or landscapes that incorporate the idea of movement with the use of lights and darks.

Have the students, using finished gestures, shade in areas where a pre-determined light source has been selected.

Assessment Measure

Have students distinguish between the gesture drawings of contemporary artists and other drawing styles.

Instructional Materials

Books:

Nicolaides, Kimon. *The Natural Way to Draw.*
Rottger, Ernst, and Klante, Driter. *Creative Drawing: Point and Line.*

Performance Objective

Use light and shade modeling to depict weight and volume in a drawing.

Suggestions for Instruction

Arrange a still life of simple forms such as boxes, bottles, and balls which have been painted white. Light it with a single spotlight and have students make a contour and value study. Then have students draw only the negative areas of a still-life arrangement.

Demonstrate the use of dots, cross-hatching or washes and suggest ways to include these techniques in the drawings. Have students collect natural forms

and draw them using shading to depict mass and volume.

Using student models in a simple standing pose, have students draw for 10 to 20 minutes. Then arrange longer poses using seated models. Have students, using crayon and/or conté crayon, employ shading to depict mass and volume. Ask students to concentrate on using light and dark to achieve solidity in space. Refer to *The Natural Way to Draw* by Kimon Nicolaides. Demonstrate the process and show examples of this technique.

Assessment Measure

Conduct group critiques of drawings which students volunteer to show.

Instructional Materials

Nicolaides, Kimon. *The Natural Way to Draw.*

Performance Objectives

Use line and texture to express mass and volume in natural forms such as driftwood fragments and seashells.

Draw an enlarged segment of a natural form stressing mass and volume.

Use a variety of tools and materials to achieve different techniques in representing mass, volume, and space.

Suggestions for Instruction

One of the most important concepts to be learned in drawing is how to bridge the gap between expressing forms as outline and visualizing objects in terms of light and dark, values and texture. Display a group of reproductions and original drawings that exhibit the use of line and texture in different media to express mass and volume. Show and discuss the film *Introduction to Contour Drawing.*

Ask students to make a series of drawings in various media using a line that has variations in weight to show volume and mass. Have them use the same materials and technique on dampened paper. Refer to Kimon Nicolaides, *The Natural Way to Draw,* for examples.

Discuss the use of line and texture drawing techniques to create a three-dimensional effect on paper. Have students practice the expression of graduated values in line and texture in pencil on rough and smooth paper. Have them use parallel lines, cross-hatching, dot, and scribbling techniques. Refer to *The Graphic Works of M. C. Escher* for illustrations. Ask students to make a pen-and-ink drawing of a piece of driftwood in which the wood texture emphasizes the expression of form.

Review the techniques for making scratchboard drawings. Ask students to make a scratchboard drawing of an animal that uses a textural technique to express form. Refer to *Drawing: Ideas, Materials, Techniques* for examples.

Using a photograph or a segment of half-tone or color photograph of an enlarged plant form as the basis for a stippled pen-and-ink drawing, have students make a pen-and-ink drawing of an arrangement of two or more natural forms that combine a variety of line and texture techniques to express mass and volume. Refer to Gerald F. Brommer's *Drawing: Ideas, Materials, Techniques.*

Set up a still life and have students use crayon, pencil, pen and ink, or washer to represent mass and volume. Refer to Reinhold Visuals, Portfolio 1, *Line.*

Assessment Measures

Have each student write a paragraph that compares the techniques developed by selected artists to express mass and volume. Have them include the following points:

- To what extent the drawings are successful in depicting mass and volume
- How different media and different tools using the same medium can be used to achieve mass, volume, and space

Instructional Materials

Books:

Brommer, Gerald F. *Drawing: Ideas, Materials, Techniques.*

Clark, Gilbert, and Zimmerman, Enid. *Art Design: Communicating Visually.*

Escher, M. C., and Locher, J. C. *The Graphic Work of M. C. Escher.*

Goldstein, Nathan. *The Art of Responsive Drawing.*

Nicolaides, Kimon. *The Natural Way to Draw.*

Pitz, Henry C. *Charcoal Drawing.*

——. *Ink Drawing Techniques.*

MCPS Film:

F-4455 *Introduction to Contour Drawing.*

Filmstrip:

"Drawing Basics."

Other Resources:

Shorewood Reproductions:

Boucher. *Girl with Jug.*

Degas. *Ballet Dancer.*

Ingres. *Iliad Study.*

Maillol. *Female Nudes.*

Van Gogh. *The Blue Cart.*

Performance Objective

Identify lineal qualities and group a set of representative drawings accordingly.

Suggestions for Instruction

Compare contour drawing with sketching by demonstrating each technique and by referring to art reproductions. Have students do a different drawing with each technique from a simple but interesting object. In a group critique, compare the different linear effects.

Show and discuss the films *The Dot and the Line,* F-5211, and/or *Discovering Line,* F-2728. Have students draw and identify as many different types of lines as possible and display the results. Have students identify each type of line by stating an emotional reaction or by citing a source from nature.

Show reproductions such as a Picasso for contour

drawing; Rubens, Rembrandt, and Degas for line variation; Kollwitz for emotional use of line; and Matisse for the structural use of line.

Assessment Measures

In class discussion have students point out different line qualities and how they function in several published drawings.

Given a set of numbered drawings, the student will group them first according to aesthetic qualities and then by compositional structure.

Instructional Materials

Books:

Evans, Helen. *Man the Designer.*
Harlan, Calvin. *Vision and Invention.*
Moholy-Nagy, Laszlo. *Vision in Motion.*
Schinneller, James A. *Art/Search and Self-Discovery.*

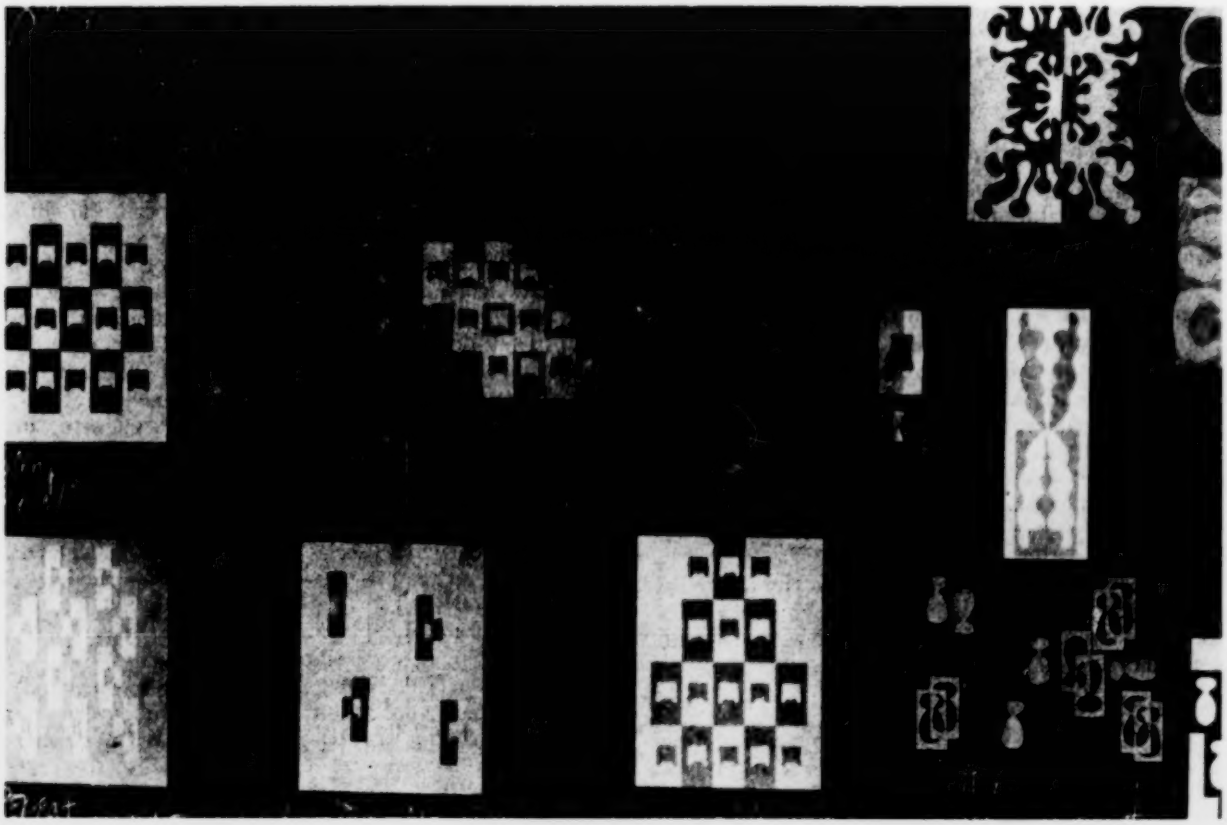
MCPS Films:

F-5211 *The Dot and the Line.*
F-2728 *Discovering Line.*

Other Resources:

Shorewood Reproductions:
- Boucher. *Girl with Jug.*
- Corot. *Girl in Beret.*
- Degas. *Ballet Dancer.*
- Klee. *Harbor Scene.*
- Kollwitz. *Mother and Child.*
- Leonardo. *Portrait of Isabella d'Este.*
- Modigliani. *Women.*
- Picasso. *Mother and Child.*
- Rembrandt. *Prodigal Son.*
- Rubens. *Head of a Boy.*
- Van Gogh. *Iron Bridge.*

Reinhold Visuals:
- *Line* (Portfolio #1).



Design

Concepts

Drawing and design are closely related skills that the student uses interchangeably. In the developmental stages of artistic expression, an understanding of the principles of design is necessary. The primary need for the artist to communicate an idea or expression can best be handled through the understanding of the basic design principles: unity, balance, rhythm, repetition, proportion, and variety.

Most designs are categorized into one of the several basic structures found in nature. Natural objects exemplify shapes and patterns that the student can translate into design. Designs are derived from the total natural object or partial detail, from familiar images or abstracted motifs and symbols.

Good composition adheres to the principles of design and develops from the need of the artist to communicate through an honest expression of ideas and use of materials.

Instructional Objective

The student should be able to identify sources of design in nature and use one of several design structures or systems in a work of art or craft.

Suggested Performance Objectives

Identify 15 basic design structures and demonstrate an understanding of design organization.* (Refer to Appendix E.)

Produce a series of designs based on drawings from natural objects.*

Produce six designs using the same basic elements as a starting point.*

Create a composition in which a small segment of a natural object is greatly magnified.*

Identify several systems of spatial organization used in art or design.*

Identify positive and negative shapes in a design or painting.*

Create positive and negative shapes in an organic and a geometric design.*

Create a composition of formal or informal balance.

Demonstrate the importance of unity in a composition.

Create a design of rhythmic patterns.

Demonstrate the ability to arrange proportions in a design.

Create a repeated design from an organic or mechanical object.

Design an environment based on a natural form.

Create a design contrasting color, size, shape, or texture.

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* Sample lessons are provided.

Sample Units

Performance Objective

Identify 15 basic design structures and demonstrate an understanding of design organization.

Suggestions for Instruction

Identify, through discussion with students, the 15 structures into which designs most frequently fall. Discuss the order and organization of the groups, pointing out the simpler structures versus the more complicated and sophisticated ones. Ask the students to describe examples of each system found in nature or their environment. Then, have the students cut appropriate examples from magazines or suggest that the students create designs to fit specific structures.

Next, direct the students to break down the 15 structures so that the designs fit into the formal or informal design groups. Discuss which groups appear to be rigid and controlled and which appear more casual and free.

Assessment Measures

Critique the finished designs, considering how they fit into the overall organization of design.

Test the students for their recall of the 15 design structures.

Instructional Materials

Appendix E, "Basic Structures."

Books:

Bevlin, Marjorie. *Design Through Discovery.*
Feldman, Edmund. *Becoming Human Through Art.*

Performance Objective

Produce a series of designs based on drawings from natural objects.

Suggestions for Instruction

Start this assignment by explaining to the students how a series or a progression of designs will develop from an initial group of drawings.

The student will first choose a natural object. After looking closely at the object, the student will produce a group of drawings to demonstrate his/her ability to observe and select the pertinent details from a particular object.

Once the drawings are completed, the object can be set aside. The student is to arrive at the first design by looking closely at the arrangements of lights and darks. Suggest that the student simplify the shapes as well as the lights and darks. All the gray or middle tones (values) should be translated into a light or dark depending on the demands of the design. This design is then completed in either brush and ink or cut paper.

Next, the student is to return to the original drawings and select a new view to make the next design in the series. Emphasis for this design is to be on a color scheme, either complementary, analogous, or a limited palette. The dynamics of the student's color sense can be explored and supported.

The last design for this series calls for the student to produce a repeated design in either a relief or silk-screen print. This design presents a new problem for the student to explore. A repeated design must be capable of linking to itself as it is moved along in the printing process. Positive and negative shapes should be reviewed before the design is carried into the printing process.

Assessment Measures

Upon completion of this assignment, students should observe the series from the point of view of how a design can progress from the initial drawing of a natural object.

To what extent:

- Does the design relate to the drawing?
- Has positive and negative shape been controlled?
- Does color enhance the particular object?
- Does the repeated design work in all directions?

Instructional Materials

Books:

Bevlin, Marjorie. *Design Through Discovery.*
Rowland, Kent. *Pattern and Shape.*
Stevens, Peter S. *Patterns in Nature.*

Performance Objective

Produce six designs using the same basic elements as a starting point.

Suggestions for Instruction

Give the students a photocopied page with six boxes, each having a circle, a dot, and a line in the same position. Have the students use these marks to start different designs. Encourage the students to think about the principles of design in solving these problems as opposed to making a drawing. A helpful suggestion to the student is to repeat the shapes given and to move the design to the edges of the boxes.

Assessment Measures

To what extent:

- Do the circle, dot, and line change from one design to the next?
- Does each square show a different feeling or mood?

Instructional Materials

Books:

Clark, Gilbert, and Zimmerman, Enid. *Art Design: Communicating Visually.*
Gatto, Joseph, and others. *Exploring Visual Design.*
Harlan, Calvin. *Vision and Invention.*

Performance Objective

Create a composition in which a small segment of a natural object is greatly magnified.

Suggestions for Instruction

The tendency for students to look but not "see" often results in having difficulty with translating the commonplace into a design. To give students practice in seeing, have them cut out paper viewing frames of different sizes and study segments of the room or various objects. A natural object, no matter how minute, seems to offer ideas, links, and comparisons for developing designs. Since we project ourselves onto what we see, no two people will interpret the form in the same way. These objects will only stimulate the imagination. Refer to Natalie d'Arbeloff's *Designing with Natural Forms.*

Have students draw a segment of a fruit, vegetable, or other natural object and magnify this segment to encompass an entire page. Have students create a stylized pattern by examining the structure of an object and simplifying it. They should render this design using any combination of media such as collage, ink, and tempera.

Have students select a black-and-white photograph of a natural object that is not readily found in the local environment and create a design that resembles the object but faithfully uses the values in the reference photo. Colors may be either natural or imaginative for this design. Discuss the color in the paintings of Georgia O'Keefe.

Assessment Measures

Have students complete a student self-evaluation form.

Have students compare the completed paintings with the object(s) depicted and with other paintings of the same object(s).

Instructional Materials

Books:

Bevlin, Marjorie. *Design Through Discovery*
d'Arbeloff, Natalie. *Designing with Natural Forms.*
Rowland, Kent. *Pattern and Shape.*
Stevens, Peter S. *Patterns in Nature.*

Performance Objective

Identify several systems of spatial organization used in art or design.

Suggestions for Instruction

Show examples from Kepes' *Language of Vision* and the Reinhold Portfolio on organization which demonstrate the most common approaches to visual composition. Have students use colored paper and crayon to create a 5" x 7" example of each of the following principles of design:

- Balance (symmetrical/asymmetrical)—Cézanne's *The Card Players* and Dali's *Last Supper*
- Movement (depth and surface)—Arp's *Configuration*
- Unity—Constable's *Salisbury Cathedral* and Raphael's *Alba Madonna*
- Emphasis or variety—Chagall's *The Street* or *Rain.* Monochromatic color swatches from the previous unit may also be used.

Refer also to examples or reproductions depicting various kinds of natural and made objects. Categorize these according to the chart of basic structures provided in Appendix E.

Have students search magazines and/or their environment in order to develop two abstract designs, one based on a natural object and one on a made object. Designs will be done in tempera in a 5" x 7" area.

Analyze art reproductions for organic and formal composition as suggested on page 20 in *The Meaning and Wonder of Art.* Describe and demonstrate how to diagram a Renaissance painting using lines and geometric shapes to show the pattern of figure in space. Raphael's *Alba Madonna,* for example, will show the triangle with its base parallel to the horizon line, which stabilizes the figures within the circular space. Do the same with a Baroque painting using light and shadows. Any Rubens painting with numerous figures will usually reveal an organic, circular movement in space. Have students select either a Renaissance or a Baroque reproduction and analyze the composition by tracing or drawing. Insist on accurate proportion of design space. Display the results alongside the reproduction. In a group critique, have students compare the analysis with the reproduction. Note the differences between Baroque and Renaissance composition as suggested in Wofflin's *Principles of Art History.*

Design can be thought of as structural or applied. Review the criteria for evaluating each as suggested in chapter 6, "Evaluation of Design," in *Man the Designer* by Helen M. Evans. Display examples of pottery, furniture, textiles, and household items, both good and poor. Have students critique items in terms of the following criteria:

In structural design, to what extent:

- Does form follow function?
- Is the material used appropriate for the form?
- Has the nature of the material been respected?
- Have the concepts of spatial organization been considered?

In applied design, to what extent:

- Is the applied design necessary?
- Is the design harmonious in color, line, form and idea?
- Is the structure functional?
- Is the object designed to relate to the space in which it is placed?

Assessment Measures

Students should be able to identify examples of each principle of spatial organization discussed. The following procedure is suggested:

- Select and display 15 representative examples from the class's work and number them.
- Have students write the principle which is most aptly described by the example beside its identifying number.

Test students' ability to identify organic form as

opposed to synthetic form. Flash slides or reproductions while students identify each.

Evaluate the student designs based on natural or made objects.

Suggested Criteria:

Do designs reflect harmony of line, shape, and color?

Does each design reflect the source from which it was conceived?

Instructional Materials

Books:

Evans, Helen. *Man the Designer.*
Gettings, Fred. *The Meaning and Wonder of Art.*
Kepes, Gyorgy. *Language of Vision.*

MCPS Films:

F-1037 *Art and Motion.*
F-5650 *Discovering Harmony in Art.*

Other Resources:

Shorewood Reproductions:
- Arp. *Configuration.*
- Calder. *The Stars.*
- Cézanne. *The Card Players.*
- Chagall. *Chambon-sur-Lac.*
- ——. *Rain.*
- ——. *The Street.*
- Constable. *Salisbury Cathedral.*
- Currier and Ives. *National Game of Baseball.*
- Dali. *Sacrament, Last Supper.*
- Lawrence. *Parade.*
- Lee-Smith. *Boy with a Tire.*
- Raphael. *The Alba Madonna.*

Reinhold Visuals
- *Line* (Portfolio #1).
- *Organization* (Portfolio #3).
- *Color* (Portfolio #5).
- *Perception* (Portfolio #7).
- *Space* (Portfolio #8).

Performance Objectives

Identify positive and negative shapes in a design or painting.

Create positive and negative shapes in an organic and a geometric design.

Suggestions for Instruction

Develop the concept of positive and negative space by:

- defining the words
- showing art print examples that use positive and negative shapes and discussing their apparent interaction
- cutting out positive and negative shapes from construction paper and
  - separating the shapes from each other
  - gluing the positive shapes onto a contrasting sheet of construction paper
  - repeating the same process with the negative shapes
  - discussing with students how positive and negative shapes work on a flat surface

Have students repeat the exercise above using a contour drawing of a still life as the subject. First review contour drawing techniques.

Have students make a repeated design based on geometric shapes using rulers, compasses, and templates. This will produce a controlled design in which students will see the specific positive and negative shapes more easily. Repeat the design eight times. (Review the concept of repeated shape.) Students should paint in the positive shapes with warm colors and the negative shapes with cool colors in four of the designs. (Review warm and cool colors from the color wheel.) Reverse the colors in the second group of four designs.

Have students draw an organic object such as a flower, animal, cell, human figure, bone, pinecone, or bird. Students should simplify the drawing into a design emphasizing the positive shapes of the background. Students should paint the design as in the previous assignment using warm and cool colors.

Assessment Measures

Review the lessons, critique the results obtained in student projects, and reinforce the concepts presented. Have students do the following:

- Identify which design worked best on a large scale. Small scale. State reasons for the choice.
- Identify positive and negative shapes in such things as wallpaper, wrapping paper, fabrics, and interior designs.
- Compare art prints that use obvious positive and negative shapes with prints that use subtle shapes.

Painting

Concepts

Some form of painting has developed in every culture since the beginning of humanity. Since the cave paintings at Lascaux, France, diverse styles, techniques, and media have been employed. In painting, the artist is concerned primarily with color and composition. The overall design of a composition may be symmetrical or asymmetrical. Each painting medium—watercolor, tempera, oil, or acrylic—has unique characteristics which may tend to influence a painter's style. For example, watercolors provide transparent forms while tempera and acrylics may be used in an opaque manner. Oil paint dries slowly and can more easily be blended or mixed on the canvas.

In another way, painting has progressed from the fixed cave paintings and wall frescoes of early cultures to portable canvas and computer-generated paintings. Painting today is sometimes three dimensional in form or combined with printmaking and photography processes. During the last century, a wide range of painting styles has evolved, some of them as the result of the working properties of acrylic pigments. The fast-drying, intense colors of acrylic paint also permit the artist to work on a larger scale and on a variety of surfaces. Computer paintings can be changed with the press of a button.

In retrospect, painting has evolved full circle from the cave and is once again an integral part of architecture and media where it influences our daily lives.

Instructional Objective

Distinguish between various forms of balance in realistic, abstract, and nonobjective painting, and be able to demonstrate one painting style.

Suggested Performance Objectives

Identify symmetrical, asymmetrical, and radial balance in painting reproductions representing a variety of styles and periods.*

Demonstrate techniques for representing texture in a painting.*

Analyze the painting style(s) of an historical period and identify the materials used.*

Demonstrate methods for preparing a watercolor surface.*

Create a watercolor using the wet-on-wet, wet-on-dry, and dry-on-wet techniques.*

Demonstrate an understanding of hard-edge painting.*

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*Sample lessons are provided.

Demonstrate radial symmetry by making a kaleidoscopic design. (P-30)

Design and paint an abstract symmetrical composition which is balanced by both shape and color.

Identify positive and negative shapes in a painting.*

Demonstrate the ability to mix colors in a given sequence.*

Design and paint a representational symmetrical composition which is balanced by both shape and color.

Create a balanced composition by contrasting value. (P-75)

Create an optical illusion using a monochromatic color scheme.

Create a painting using a natural form as a unit of design and radial symmetry.

Paint a repeat pattern in tempera using one or more natural forms.

Compare the axial balance of Oriental paintings with the Western view of balance.

Identify concepts of spatial organization.

Sample Units

Performance Objective

Demonstrate the ability to mix colors in a given sequence.

Suggestions for Instruction

Seeing color: Ask students to collect natural forms such as leaves, pebbles, and shells. In class, students may trade objects in order to assemble a grouping of one color or texture and arrange them in a value scale and display the arrangement.

Mixing colors: Have each student, using primaries plus black and white, mix 30 to 40 colors varying in hue, value, and intensity. Have the student select one hue for analysis and mount these samples in order according to value or intensity. (Store samples for use in later design problems.)

Show slides or reproductions of Johns, Mondrian, and Albers, and discuss the different effects of color relationships. Have students make a 12-hue color wheel with a movable indicating device in the center that will point to analogous, complementary, and triadic sets of colors.

Assessment Measures

Have students pick out examples of basic color harmonies from magazines and identify each one.

Administer a written or oral exam that measures the student's understanding of color terms.

Instructional Materials

Books:

Kepes, Gyorgy. *Language of Vision.*
Moholy-Nagy, Laszlo. *Vision in Motion.*

MCPS Films:

F-4380 *Color and Pigment in Art.*
F-2124 *Discovering Color.*

NOTE: Numbers in parentheses indicate a reference to the painting section of the *Art Concepts and Activities Bank.*

* Sample lessons are provided.

Performance Objective

Identify symmetrical, asymmetrical, and radial balance in painting reproductions representing a variety of styles and periods.

Suggestions for Instruction

Review the elements of art. Reinforce the concept of visual balance by demonstrating physical balance with objects on a balance beam. Discuss the effects of color on visual balance by referring to the varying intensities of color and the size of each color area in a given painting.

Show reproductions of famous paintings and discuss the types of balance used in each. The following Shorewood Reproductions can be used to illustrate obvious forms of balance:

Symmetrical

Dali. *Sacrament, Last Supper.*
Leonardo. *Mona Lisa.*
Raphael. *The Alba Madonna*

Asymmetrical

Dubuffet. *Parade of Objects.*
Picasso. *Guernica.*
——. *Guitar, Glass, Fruit Dish.*

Radial

Currier and Ives. *National Game of Baseball.*
Demuth. *Figure Five in Gold.*
Vasarely. *Vega Kontash.*

The Reinhold Visuals can also be used to illustrate balance in realistic, abstract, and nonobjective painting. The portfolios on line and movement are especially useful.

Discuss various painting styles and how balance often determines the composition. Discuss the interplay of line, shape, form, texture, and color and how these elements affect balance in still life, landscape, and portrait paintings. Discuss balance in three classifications of art movements or periods:

Realism: Renaissance, Neo-Classicism, and American Realism

Abstract: Cubism, Constructivism, and Geometric Abstraction
Nonobjective: Op Art, Color-field, and Minimalism

Assessment Measures

Display and number student paintings. Have students classify each one in terms of the art style—realistic, abstract, or nonobjective. Have students also identify the type of balance depicted in each painting. Painting reproductions may either supplement or be used in place of student work.

Level 1

Have students pick out symmetrical balance in realistic and abstract paintings. Students should analyze balance by tracing over major elements in a reproduction. A symmetrically balanced design can be altered by applying different colors to certain areas outlined in the tracing.

Level 2

Have students collect natural objects, arrange a still life, and paint it with a concentration on color balance. Some students can sketch the still life and rearrange the shapes to paint an abstract design.

Instructional Materials

Books:
MCPS. *Survey of World Art.*
——. *Twentieth Century Art and Architecture.*

Other Resources:
Reproductions from Shorewood's Art Programs for Education #5015: *Shape, Balance and Composition.*

Performance Objective

Demonstrate techniques for representing texture in a painting.

Suggestions for Instruction

Instruct students how to make crayon rubbings from different surfaces in the classroom or around the school building. Display these rubbings and have students identify the source of each one.

Show the film *Discovering Texture* and discuss various sources. Refer to the textured and patterned masks from the central Congo depicted in *African Art in Cultural Perspective.* Show slides, reproductions, or actual examples of other interesting applications of texture in a design such as in pottery, sculpture, weaving, and architecture.

Have students bring in samples of textures. Make an arrangement placing the samples in order from rough to smooth; then ask each student to create a collage using any sample textures. Have students paint a copy of their collage, trying to reproduce the textures.

Assessment Measure

Compare the student collages with their paintings.

Instructional Materials

Books:
Bascom, William. *African Art in Cultural Perspective.*
Harlan, Calvin. *Vision and Invention.*
Morman, Jean Mary. *Art: Of Wonder and a World.*
——. *Art: Tempo of Today.*

MCPS Film:
F-2126 *Discovering Texture.*

Other Resources:
Shorewood Reproductions:
Chardin. *Still Life with Pipe.*
Durer. *The Hare.*
Homer. *Breezing Up.*
Koson. *On the Wing.*
Matisse. *Dahlias.*
Monet. *Boats on the Beach.*
——. *Tulips in Holland.*
Rembrandt. *Man with Helmet.*
Renoir. *Girl with Sheaf of Corn.*
Van Gogh. *Sunflowers.*
Reinhold Visuals:
Surface (Portfolio 4).

Performance Objective

Identify positive and negative shapes in a painting.

Suggestions for Instruction

Compare made shapes with natural shapes by making a list of distinguishing characteristics identified by the class. For examples, refer to *Art as Design: Design as Art* and to the Reinhold Portfolio on *Mass.*

Have students analyze positive and negative shapes by completing one of the following exercises:

Level 1

Using the reproductions of Baroque painting, make tracings or sketches of the major forms. Exchange work with another student and identify positive sections in his/her work by shading them with chalk or crayon.

Level 2

Draw a still life, concentrating on the negative shapes only. (Student self-assessment criteria should specify that objects should be apparent in each drawing as a result of seeing the negative shape.)

Level 3

Crop and enlarge a section of a Roman type face. Emphasize the negative space with color or tone.

Assessment Measures

Level 1

Have students compare their tracings with the Baroque reproduction. Display and number the reproductions and the students' drawings. Have the students match each drawing with a reproduction.

Level 2

Have the students compare their drawings with the still-life composition.

Level 3

Have the students compare the type-face drawings with the original letter form.

Instructional Materials

Books:

Clark, Gilbert, and Zimmerman, Enid. *Art Design: Communicating Visually.*
Evans, Helen. *Man the Designer.*
McIlhany, Sterling. *Art as Design: Design as Art.*

Other Resources:

Shorewood Reproductions:
Chagall. *Rabbi: The Pinch of Snuff.*
Feininger. *Upper Weimar.*
Gauguin. *Harvest Scene.*
Klee. *Sinbad the Sailor.*
——. *Viaducts.*
Picasso. *The Lovers.*
Van Gogh. *Child with a Dove.*
Vermeer. *Milkmaid.*
——. *Woman in Blue.*
Reinhold Visuals:
Mass (Portfolio 2).

Performance Objectives

Analyze the painting style(s) of an historical period and identify the materials used.

Suggestions for Instruction

Divide the class into small groups and assign each group a separate style of painting. Each group will determine what materials and style were used by artists of the period being studied by reading study sheets prepared by the teacher.

Unique styles of painting can be shown from various periods in art such as Renaissance, Byzantine, Gothic, Impressionism, Cubism, and Pop Art. Each style has a variety of materials and techniques associated with it. For example, Cubist works of art were done in tempera, watercolor, oil, and collage. Multimedia works emerged during this time.

Have students in each group execute a small sample of the style and techniques of their assigned period of painting. Follow up with a discussion and a comparison of student's sample paintings, paying particular attention to how different forms of paintings evolved throughout history. Discuss the types of supports used for the painting method being described, methods of applying pigments to supports and grounds, materials and equipment used in the actual painting, and the purpose of the painting. Discuss how balance can influence the composition of a painting.

Assessment Measures

Give students a number of paintings that have been produced by students for this assignment, and have them identify the style of each painting.

Show selected samples of paintings representative of prehistoric times to the present day, and have students identify the painting method used in each.

Performance Objectives

Demonstrate methods for preparing a watercolor surface.

Create a watercolor using the wet-on-wet, wet-on-dry, and dry-on-wet techniques.

Suggestions for Instruction

Show and discuss the MCPS films *Watercolor Painting: The Marine Scene with Herb Olsen; Dong Kingman;* and *Working with Watercolor.* Make some general observations about the spontaneity of watercolor and the several ways to use them.

Discuss the content and making of watercolor paper—a higher percentage of rag content in paper makes a better quality and more expensive paper. A 140 lb. paper means 500 sheets would weigh 140 pounds. A 300 lb. paper has better qualities for watercolor but is too expensive for the beginner.

Obtain several varieties (weights and textures) of watercolor paper along with newsprint, typing paper, sketchbook paper, tissue paper, layout paper, illustration board, vellum, and bristol board. Label the samples and pass them around the class for study. Discuss the possibilities and limitations of using each of these papers with the watercolor medium. Demonstrate a brush stroke on each sample. Demonstrate three different watercolor techniques, wet-on-wet, wet-on-dry, and dry-on-wet, and discuss appropriate brushes and their use and care. Briefly discuss the merits of both cake and tube watercolors.

Demonstrate two methods of stretching watercolor paper:

- Wet watercolor paper and mount with gummed paper tape on a drawing board.
- Show how one can staple wet watercolor paper on painting stretchers and how the paper becomes very tight when it has dried.

Display various reproductions of watercolor paintings and discuss with students the three basic techniques (wet-on-wet, wet-on-dry, dry-on-wet) and the skills involved in these paintings. Oil or acrylic techniques may also be compared with the techniques used with watercolor.

Set up a still life and have students sketch the forms realistically. Students should then rearrange all forms and create an abstract painting of the composition. Have students identify and discuss forms of balance used in the realistic and abstract sketches.

Assessment Measures

Compare student watercolors for their use of the techniques wet-on-wet, wet-on-dry, and dry-on-wet.

Suggested Criteria:

To what extent:

- Did the student establish a recognizable form of balance?
- Did the student successfully execute the watercolor techniques?
- Do the paintings reflect a knowledge of realism and abstraction as styles?

Display and number all student sketches and paintings in a random sequence separating the still-life sketch from the abstract painting. All students

will identify appropriate pairings for the works on display.

Instructional Materials

MCPS Films:
F-0800 *Dong Kingman.*
F-6260 *Watercolor Painting: The Marine Scene with Herb Olsen.*
F-1645 *Working with Watercolor.*

Other Resources:
Shorewood Reproductions:
Picasso. *Fruit Basket.*
——. *Lemon and Oranges.*
Rohlfs. *Sunflowers.*
Wyeth. *April Wind.*

Performance Objective

Demonstrate an understanding of hard-edge painting.

Suggestions for Instruction

Show examples of acrylic paintings by contemporary painters such as Gene Davis, Frank Stella, Joseph Stella, and Kenneth Noland. Compare these with commercial acrylic illustrations found in magazines and in advertising and promotional materials.

Discuss the origin of hard-edge painting. Compare this nonobjective style with realism and give emphasis to the different forms of balance. Refer to *Painting: Ideas, Materials and Processes,* by Virginia Timmons. Have other books available to review information on acrylics. Many painting books have a chapter or two on acrylics. Assign readings in Taubes' book *Acrylic Painting for the Beginner.*

Display reproductions from Shorewood, such as:
Vasarely. *Vonal KSZ*
Stella, J. *Brooklyn Bridge*
Still. *1957, No. 1*
Shahn. *Still Music*

Prepare and display visual aids showing the following:
Hard-edge painting
Paint with matte medium added
Paint with gloss medium added
Paint with gel added
Sand, modeling paste and mixed media
Acrylic with varnish medium applied

Demonstrate the use of acrylic paint and tape to produce a hard-edge painting.

Discuss tools and their care, stressing the following rules:
Keep brushes clean with soap or detergent.
Keep brushes in water during the process of painting.
Avoid pouring paint into sinks.
Keep palette and palette knife wiped and washed after each painting session.
Do not get acrylics on clothing.

Demonstrate the procedures for stretching a canvas and applying gesso to masonite or canvas.

Assessment Measures

Ask student to produce a painting using the hard-edge style on gessoed masonite, canvas, or board.

Have students participate in a group critique and make statements that:
- describe one or more painting techniques and variations, including hard edge
- describe the characteristics of acrylics

Instructional Materials

Books:
Ballinger, Harry R. *Painting Landscapes.*
Brommer, Gerald F. *Transparent Watercolors.*
Davidson, Abraham. *The Story of American Painting.*
de la Croix, Horst, and Tansey, Richard G. *Art Through the Ages.*
Fabri, Ralph. *Artist's Guide to Composition.*
Guptill, Arthur. *Watercolor Painting Step-by-Step.*
Taubes, Frederick. *Acrylic Painting for the Beginner.*
Timmons, Virginia. *Painting: Ideas, Materials, Processes.*

Periodicals:
"The Art of Design," *Art and Man,* Vol. 8, No. 3, Dec. '77/Jan. '78.

Other Resources:
Shorewood Reproductions:
Botticelli. *Adoration.*
Brueghel, Pieter. *Harvestors' Meal.*
Evergood. *Sunny Street.*
Homer. *Snap the Whip.*
Lee-Smith. *Boy with a Tire.*
Millet. *The Gleaners.*
Monet. *Women in a Garden.*
Picasso. *Fruit Basket.*
Rohlfs. *Sunflowers.*
Seurat. *Bathing Place at Asnieres.*
Shahn. *Still Music.*
Stella. *Brooklyn Bridge.*
Still. *1957, No. 1.*
Vasarely. *Vonal KSZ.*
Wyeth. *Study for "April Wind."*

Filmstrips:
"Appreciating Abstract Art."
"Appreciating Representational Art."
"Art and the Masters."
"Kinetic Art."
"20th Century American Art—Representational Tradition."
"Understanding Pop Art."

MCPS Films:
F-0800 *Dong Kingman.*
F-6260 *Watercolor Painting: The Marine Scene with Herb Olsen.*
F-1645 *Working with Watercolor.*

Crafts

Concepts

Craft objects are generally considered to be aesthetic, functional items which are applicable to everyday use. Traditionally, crafts were integrated with basic survival skills to provide wearing apparel, shelter, tools, and utensils. Every culture has celebrations and ceremonies based on its traditions or beliefs. Historically, some cultures have influenced the crafts of other cultures through the development of specialized subject matter, styles, or motifs based on location, beliefs, or resources.

Many of today's machine-made articles were originally handmade and still frequently imitate the handmade object. Most contemporary crafts are handcrafted not because of economic necessity but to satisfy a desire for the uniqueness and beauty of a one-of-a-kind object. Quality of design and craftsmanship separate souvenir crafts from significant crafts. Good design considers the relationship of form, material, and structure to function. Decorative design applied to the surface should enhance the underlying structure. Good design and sound technique will elevate a crafted object to an aesthetically satisfying form. Traditional designs, techniques, and materials can be studied and adapted to current styles or methods of production. Since the crafts record the social history of every culture, the study of crafts affords an excellent opportunity to relate the process or the product to other school disciplines.

Instructional Objectives

Compare traditional and contemporary craft styles by demonstrating a craft technique in fiber, metal, wood, paper, or clay.

Identify works of art and craft that are representative of various cultures or ethnic groups and name their characteristic features.

Identify health and safety precautions related to the art and craft processes studied.

Identify sources of design in nature and use of several design structures or systems in a work of art or craft.

Demonstrate the ability to analyze the art or design of an historical period, and make evaluative statements.

Suggested Peformance Objectives

Compare the basic techniques employed in crayon batik and traditional batik.*

*Sample lessons are provided.

Describe thematic and design differences among the batiks found in Africa, Asia, and the Western civilizations.

Utilize several methods for designing and producing a batik on fabric or some other material.

Describe the past and present uses of macrame and basketry in various societies.

Compare ancient styles of weaving by referring to pattern, texture, color, material, and function, and produce a woven length of fabric.*

Compare weaving among selected cultures during a specific time period by referring to looms, materials, functions, and art elements and principles.

Compare containers found in nature with made containers.*

Use a design structure from nature to produce a functional form.*

Produce a contemporary, nontraditional woven item by utilizing the third dimension and incorporating materials other than yarn.

Distinguish between the general characteristics of an oriental rug and a Navajo rug.

Compare techniques of enameling on metal in terms of physical characteristics and the historical context of the process, and produce an enameled shape.*

Recycle a throw-away object by adapting a traditional toleware (japanned tinware) treatment to its surface.

Compare examples of a piece of furniture, such as a chair, from a given time in history in different parts of the world.

Identify classical furniture styles by naming the designer or the culture from which it is derived.

Using the medium of wood, produce a toy that moves.

Describe the symbolism and techniques of the paper-cutting crafts of Poland, Mexico, Germany, and Japan.

Make a small functional form in papier-mâché and decorate it using simplified decoupage techniques. (C-22, C-95)

Produce a contemporary piece of pottery by combining classical and popular forms.

Compare the forms and motifs generally used in ancient Greek and American Indian pottery.

Collect examples of natural forms found in craft designs and categorize them according to form.

Develop and produce a symbol based on personal heritage.

Develop a chart or map to relate specific crafts to geographical locations.

List and identify obsolete craft items and categorize them by process.

Identify examples of the meander motif in the crafts of various cultures.

Demonstrate a simple bookbinding process and incorporate a creative design on the cover.

Research the lifestyles of ancient and contemporary craftspeople.

Trace the development of animal forms as a design motif in crafts.

Sample Units

Performance Objectives

Compare containers found in nature with made containers.

Use a design structure from nature to produce a functional form.

Suggestions for Instruction

Form and function are synonymous with containers. Our designs have been influenced by nature's own containers, by available materials, and by the intended function. Forms are further influenced by the working attributes of the material. In addition to taking care of the basic functional requirements (including lids, handles, closings), people frequently decorate containers, which become symbols of pride in workmanship and objects for rituals.

Nature's containers include nests, turtles, gourds, barnacles, eggs, kangaroo pouches, cocoons, anthills, pelican bills, bananas, pods, and people themselves. Containers made by people include jewelry, buildings, bags, baskets, bottles, packaging, clothing, caskets, furniture, dishware, frames, capsules, candlesticks, utensils, planters, and pipes.

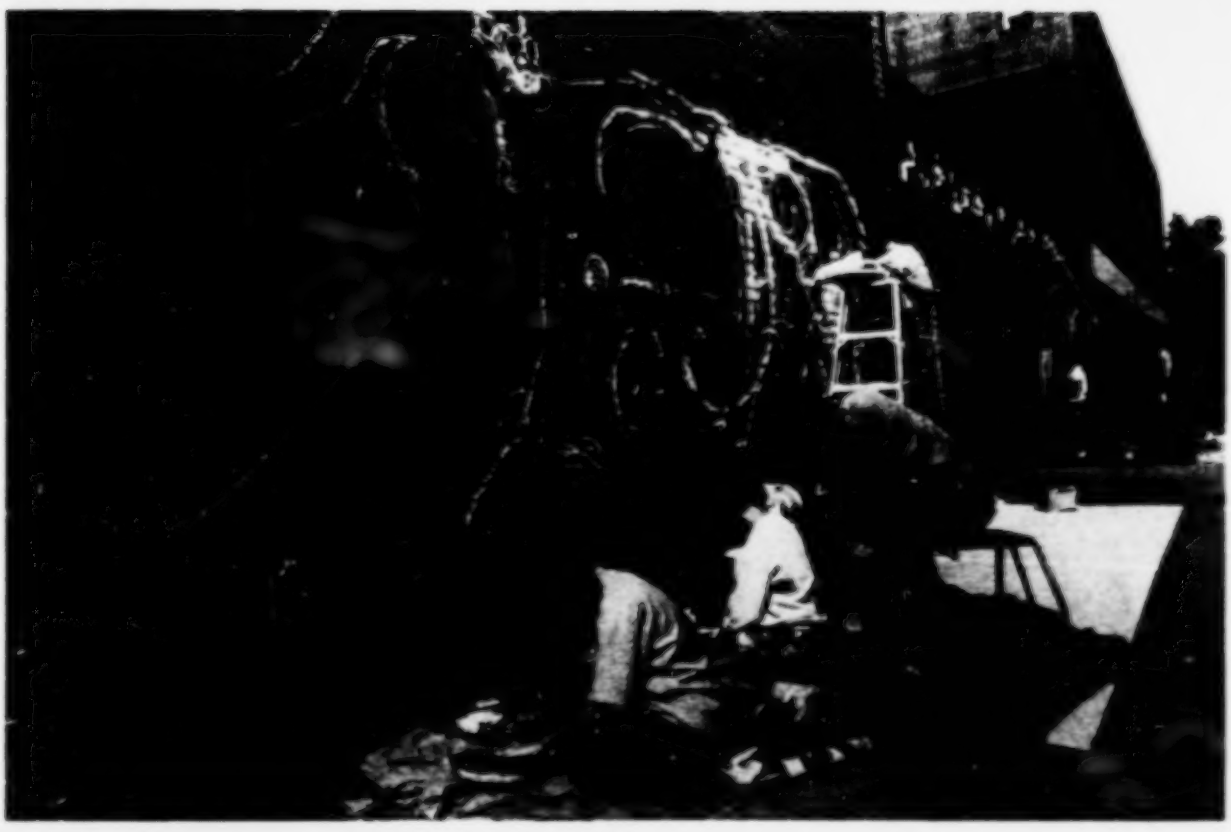
Since there are many craft forms that could be studied, the following chart illustrates how a craft unit could be structured within an art course. The crafts are categorized according to process. Note that some media and/or craft objects fit into all or nearly all of the process categories.

A classroom may be organized with a number of centers or options from which students may choose. The suitability of a craft for class options depends upon the interest and ability of the students, the availability of tools and materials, the physical facilities, and the management skills of the teacher. Three or four different or related crafts are a reasonable number to offer. The accompanying chart may be used in two ways:

- The teacher might first choose a process and then identify design concepts and basic techniques for it. He/she would then provide medium and craft form options among which students could choose.
- After the craft problem or theme of containers has been selected, students could interpret it through several processes. The class would discuss design concepts relative to that craft project, and students would work with one or more chosen processes.

Instruction in the safe use of tools and materials should be given for whatever processes are used.

* Sample lessons are provided.



Environmental Design

Concepts

The study of environmental design supports the growing awareness of and concern for our environment. No species of living thing can be replaced once it has become extinct, and polluted air can endanger our survival. Our social and economic systems are also changing and affecting the way people live. This, in turn, affects the way people behave. The thesis that we shape our buildings and that they, in turn, shape us can easily be extended to include any space we design regardless of whether it is a room, a park, or a city. The extent to which these designs are successful depends upon the designer's ability to integrate social, technological, and aesthetic factors in the design solution.

Note to teachers: The goals of this unit are to help students develop an awareness of our designed environment, recognize opportunities for influencing our environment, and acquire an understanding of the design process. Please refer to the MCPS *Environmental Design: Instructional Resource Guide, Grades 6-12* for further statements and sample units to support these goals.

Instructional Objectives

Analyze architecture and environmental design in a natural, technological, historical, and/or social context by making a project.

Demonstrate the ability to analyze the art or design of an historical period and make evaluative statements.

Identify sources of design in nature, and use one of several design structures or systems in a work of art or craft.

Identify works of art and craft that are representative of various cultures or ethnic groups, and name their characteristic features.

Suggested Performance Objectives

Compare human-made forms with forms occurring in nature. Create an architectural design based on forms found in nature.

Summarize the recreational, management, and service facilities appropriate for a given park site. Design a safe playground area for a small urban park.

Identify two general categories for monuments and give examples of each. Design a monument for a community site.

Demonstrate the correlation of several architectural styles with their periods in history.

Distinguish between the construction materials or

Unit Topic: Containers

Process	Activities	Historical/Cultural References	Instructional Materials	Craft Form
Weaving	Materials offer a wide range in which to manipulate texture, line, color, elasticity: • Coil a basket. • Weave a handbag on a cardboard loom. • Incorporate natural objects.	Refer to the distinctive Crow Indian beadwork baskets with floral motifs. Plaited and coiled baskets from Africa, Asia, and America are very similar. Tablet weaving had reached a high state of development in Egypt 4,000 years ago.	**Books:** Christopher, F. *Basketry.* Naumann, Rose, and Hull, Raymond. *The Off-Loom Weaving Book.* Oka, Hideyuka. *Five More Eggs.* **MCPS Films:** F-5533 *Basketmaking in Colonial Virgina* F-6378 *Weaving with Looms You Can Make* **MCPS Activity Bank:** C1, C6, C57	tapestry, coiling, twining, sprang, loom
Carving/ Incising	Materials offer no absolutes in terms of softness or hardness: • Think form and mass. • Carve a planter from feather rock. • Chip carve a design on a basic block of wood for use as a candleholder.	Refer to ornamental carving in Morocco for architectural use. Since Muslim religion prohibits carving humans or animals, geometric designs are typical. Mayan Indians carved lava stone with symbols akin to hieroglyphics.	**Book:** Di Valentin, Maria. *Practical Encyclopedia of Crafts.*	scrimshaw, sgriffito, topiary, chip carving, whittling
Forming/ Modeling	Materials offer a range in which to control texture, shape, rhythm, pattern, mass, and space: • Pinch a clay pot. • Incorporate the texture of bark by impressing it directly on bark. • Recycle a container by covering it with foil repoussé.	Refer to many contemporary clay pieces which project political and/or social comment. The traditional black pottery of Mexico or southwest American Indians is very different from Raku. Papier-mâché forms appear in Latin American ceremonies.	**Books:** Berensohn, Paulus. *Finding One's Way with Clay.* Harvey, Marian. *Crafts of Mexico.* Newman, Thelma and Jay. *The Container Book.* **MCPS Films:** F-0051 *Arts and Crafts of Mexico: Pottery and Weaving* F-7217 *Hands of Maria* **MCPS Activity Bank:** C21, C38, C91	forging, hammering, tooling, vacuum forming
Folding/ Blending/ Curling	Materials must yield to pressure and then resist it; involve all design elements and principles: • Fold a paper box or boat in original style and fill it with a handcrafted "unexpected." • Change a soft drink can to another container form. • Quill a frame for a small mirror.	Introduce comparisons of symbols as shown in Swedish grove crosses (wrought iron) and the Algerian "hamsa" (gold or silver filigree). Quilling traditionally was done by women. Discuss other crafts traditionally done by men or by women. Why?	**Books:** Di Valentin, Maria. *Practical Encyclopedia of Crafts.* Plath, Iona. *The Decorative Arts of Sweden.*	origami, quilling, filigree
Surface Designing	Materials place no limits on use of color, pattern, style, scale. They enhance underlying structure: • Decorate an egg using batik method. • Appliqué a soft container.	Describe Czechoslovakian peasant-designed eggs. Designs were applied on raw eggs, put away for months until contents had dried up, and then given as tokens of friendship, not food. Afro-American quilts show us how European artifacts may be modified by African canons of design and thus stand as statements of cultural survival.	**Book:** Vlach, John Michael. *The Afro-American Tradition in Decorative Arts.* **MCPS Films:** F-6379 *Batik* F-7178 *Pysanka, The Ukranian Easter Egg* F-6380 *With Fabric and Thread* **MCPS Activity Bank:** C8, C18, C37	batik, tie-dye, enameling, adinkra, stencil, toleware, laquerware, mosaic, stitchery, appliqué, decoupage

Process	Activities	Historical/Cultural References	Instructional Materials	Craft Form
Piercing	Activities are concerned with shapes and patterns created by paint and line on a form. • Cut and pierce paper to make a lampshade. • Cut and pierce a tall can to convert it to a lantern. Make a lid and handle, too.	Japan has been called a "paper country" because of the extent to which paper has been used artistically. China, Mexico, Poland, and Germany are all famous for paper cutting. In the 18th and 19th centuries, perforated tin lanterns were named after Paul Revere.	**Books:** Christensen, Erwin O. *The Index of American Design.* Jablonski, Ramona. *The Paper Cut-Out Design Book.* Moseley, Spencer, and others. *Crafts Design.* Sargent, Lucy. *Tincraft for Christmas.*	paper sculpture, bookbinding, paper jewelry
Knotting/ Looping	Materials offer flexibility or rigidity for control of line direction, pattern, and form; texture; and space. • Macrame leather strips and incorporate them into a natural container (e.g., a coconut). • Knot a pop art statement.	Primitive people laced furs and hides together to make clothing. They stitched designs to enhance appearance and for ceremonial vestments. Seamen made knots for function and decoration.	**Books:** Meilach, Dona Z. *Macrame Accessories.* Newman, Thelma and Jay. *The Container Book.* Rainey, Sarita R. *Fiber Techniques: Knotting and Looping.* ——. *Wall Hangings: Designing with Fabric and Thread.* **MCPS Film:** F-6076 *Macrame* **MCPS Activity Bank:** C13, C15, C62, C64, C65	plaiting, hooking, lace making, tatting, crocheting, knitting, macrame
Constructing	Materials offer unlimited choices. Forms are influenced by materials. Positive-negative space, scale, texture, thickness, and transparency. • Build a carrier or habitat for a pet. • Organize a modular system as a bank.	Universal basic forms; all phenomena can be expressed in fewer than 15 basic structures. The use of plastics in craft work has grown in the last 30 years. Early applications tried to copy natural materials; now the unique qualitites of plastics are appreciated.	**Books:** Newman, Thelma and Jay. *The Container Book.* Von Frisch, Karl. *Animal Architecture.* Wilson, Forrest L. *Architecture and Interior Environment: A Book of Projects for Young Adults.* **MCPS Film:** F-3312 *Animal Habitats* **MCPS Activity Bank:** C28, C29, C54, C94	model building, toy making, kite making, quilting.

Performance Objective

Compare the basic techniques employed in crayon batik and traditional batik.

Suggestions for Instruction

Batik, a method of applying colored designs to fabric, is native to Java (Indonesia). Traditionally, the design is made on the fabric with wax or paraffin, which when dyed will resist the color. After the cloth is dry, the process is then repeated as often as desired. The crackled linear effect is characteristic of this method. To remove the wax, boil in water or iron between sheets of newspaper.

Instead of achieving color by dipping the fabric in dye, the color pigments of crayons are used. A muffin tin floating in hot water in an electric frying pan serves as a palette, and the color is brushed thinly on the surface. An alternative procedure is to place the fabric on a heated metal surface and draw with the crayon. The process then duplicates the traditional batik, and a dye bath produces the linear crackle effect. *Caution:* Wax burns. Therefore, it is imperative to remind students to maintain the water level in the pan or to provide a safe heated surface. Refer to the January 1978 issue of *School Arts Magazine* for the article by Nancy Belfer entitled "Batik: Designing on Fabric." Discuss information regarding a career as a textile designer.

Show and compare examples of crayon batik and traditional batik emphasizing techniques employed by the Indonesians, Indians, Africans, and contemporary Western batik artists. Use the filmstrip

Photography

Concepts

As early as the fifteenth century, da Vinci described the optical principle of the camera obscura, and for centuries, artists used it as a drawing aid. Today, painters, sculptors, and printmakers rely on photography to develop or enhance their art statements. Photo-realist painters such as Richard Estes and Robert Cottingham use their photographs as references while painting. Other artists such as Andy Warhol and Robert Rauschenburg incorporate photo-silk-screen images into their work. Some artists assemble Polaroid pictures to express an idea while others use slides in various ways.

Note to Teachers

The activities suggested for this unit are aimed at heightening student awareness of the ways in which photography is recognized—as an art form, as a form of visual communication, and as a tool for the other visual arts. Throughout this unit, the principles of design should be included in discussions of composition and aesthetics. Student recognition of the form of the visual idea and its expression should be a major concern for this short unit.

While some photographic supplies must be purchased, locate sources for free or inexpensive supporting materials. Check the yearbook office for surplus books, photo materials, and negatives. Bleach old film for re-use. Take advantage of free services from companies like Kodak. Use everyday items for handmade slides.

Instructional Objectives

Describe and/or demonstrate the influence of photography, film-making, and television processes on the visual arts.

Demonstrate the ability to analyze the art or design of an historical period and make evaluative statements.

Identify health and safety precautions related to the art and craft processes studied.

Suggested Performance Objectives

Identify several classifications of photographs, such as news, commercial, portrait, and scientific, and then group a collection of photographs accordingly.

Develop criteria for the selection and composition of subject matter for photographs. (See MCPS, *Commercial Art: An Instructional Guide and Resource*, p. 18.)

Identify aesthetically pleasing forms and compositions in photographs. (See MCPS, *Commercial Art:*

"Creative Batik" to encourage a wider variety of designs.

Discuss the possibilities of using batik fabrics for clothing, wall decoration, and three-dimensional objects such as pillows and sculpture.

Offer a choice of methods to students. Crayon batik is simpler than the traditional method, in the sense that the student will be better able to see the design progress, as there is little variation in the final design. Refer to *Designing in Batik and Tie Dye,* by Nancy Belfer.

Assessment Measure

Have students compare methods of batik by listing the advantages and disadvantages of each.

Instructional Materials

Books:

Belfer, Nancy. *Designing in Batik and Tie Dye.*
Horn, George F. *Crafts for Today's Schools.*
Meilach, Dona Z. *Contemporary Batik and Tie Dye.*

Periodical:

Belfer, Nancy. "Batik: Designing on Fabric with Heated Wax and Dyes," *School Arts Magazine,* Jan. 1978.

Filmstrip:

"Creative Batik."

MCPS Film:

F-6379 *Batik.*

Performance Objective

Compare ancient styles of weaving by referring to pattern, texture, color, material, and function, and produce a woven length of fabric.

Suggestions for Instruction

Historically, fibers have provided clothing, shoes, cooking utensils, and shelters. The type of fiber developed by a culture was dependent upon its availability. Fibers such as reed, bamboo, cotton, wool, and furs were utilized in appropriate climates to meet life's needs.

Weaving is perhaps the oldest of recorded fiber crafts and has been used by all cultures in a variety of techniques from simple tabby to knotting to intricate pattern weaving. Fiber looms may vary in intricacy from a single rod or branch, such as that of the Tlingit Indians, to a multiple-harnessed floor loom currently in use by weavers. Backstrap, card, stretcher, Hungarian, and inkle looms are other examples of inexpensively contructed looms in use today.

Compare weaving such as Coptic, Incan, and Kente weaving, analyzing the motif.

Discuss the functions of woven fibers with reference to climate.

Discuss patterns of early American loom work.

Identify student interest or abilities and assign one of the following exercises to each student:

- Weave a length of fabric using a classic four-harness loom pattern.
- Design and weave a tapestry using the traditional method.
- Design and weave a bag, table runner, or wall hanging using an inkle loom, a Hungarian loom, or a card loom. All of these produce strips that must be sewn together to gain the width necessary for the product.

Assessment Measures

Give a test. Below are sample questions:

- What are the similarities and differences in the designs found on various continents?
- How are woven fabrics used in each of the cultures studied?
- Describe the differences in the weaving methods from earliest times to the present.
- What technical skill is evident in very early weaving?

Have the students compare weaving projects during a class critique.

Instructional Materials

Book:

Naumann, Rose, *The Off-Loom Weaving Book.*

MCPS Films:

F-5895 *Weaving.*
F-6378 *Weaving with Looms You Can Make.*

Other Resources:

Ethnic trunks from Evaluation and Selection:
"Being Black"
"Being New American"
"Being Chinese"
"Being Spanish"
"Being Indian"
"Being Middle Eastern"
"Being Russian"

Performance Objective

Compare techniques of enameling on metal in terms of the physical characteristics and the historical context of the process, and produce an enameled shape.

Suggestions for Instruction

Metal has traditionally been prized for its intrinsic and aesthetic value. Worked into shapes for body decoration, metal has served as an indicator of wealth in some societies.

Gold has always been in demand by metal craftsmen, although bronze and silver are more often worked to produce ornamental and functional objects. Copper is the least expensive, easily shaped metal suitable for the craftsman. Enameled jewelry, containers, and decorations are popular forms of metal crafts. Enameling is a technique of fusing glass to a metal surface. Copper is now widely used in jewelry, plates, bowls, and sculptural forms as the surface for enamel.

Display and discuss color and shapes of natural forms.

Describe and/or demonstrate the cloisonné meth-

od, sgraffito, champlevé, and plique-à-jour methods, and identify the country of origin of each method.

Review the safety rules for the operation of a kiln and the precautions that must be taken when working with hot metal.

Use only flameproof surfaces (bricks) for enameling work stations.

Have the student select one of the enameling techniques demonstrated, and produce a small enameled object.

Assessment Measure

Have students describe the process of enameling and relate certain techniques to an historical period.

Instructional Materials

Book:
Moseley, Spencer, and others. *Crafts Design.*

MCPS Film:
F-5737 *Enameling.*

Commercial Art

Concepts

The study of commercial art will explore some of the vocational and professional opportunities in art directed toward the consumer. The student will work on art that communicates a specific message or idea. While acquiring the practical skills and information needed to produce artwork, students will begin to understand and use the design process. Design problems will be practical studies encountered in the commercial world. A basic goal is to expose the students to a direct method of solving a design problem. Both the aesthetic and the functional aspects of a design problem will be considered in visual communication and product design activities. Through these experiences the students will acquire an increased awareness of the significance commercial art has in manipulating their lives and influencing their values.

Instructional Objectives

Identify the skills required for a career in commercial art by producing an example of graphic design or industrial design.

Identify sources of design in nature, and use one of several design structures or systems in a work of art or craft.

Identify works of art and craft that are representative of various cultures or ethnic groups, and name their characteristic features.

Demonstrate the ability to analyze the art or design of an historical period, and make evaluative statements.

Suggested Performance Objectives

Identify the psychological and sociological factors in advertising art.

Demonstrate fundamental drawing board skills.

Design and prepare a copy-ready layout using found illustrations and traced or grid-enlarged lettering.

Produce a simple graphic design following art studio procedures—thumbnail sketches, rough layout, artwork, type, and paste-up.

Identify and produce five basic layout compositions.

Apply studio methods, practices, and procedures to a finished paste-up mechanical.

Design and produce a silk-screen poster.

Develop a black-and-white illustration for a newspaper advertisement.

Produce illustrations from selected themes.

Collect and organize type faces into type families.

Analyze examples of product design, using criteria related to function, aesthetics, and human needs.

Select a popular product and redesign the package or container.

Discuss and demonstrate the psychological impact of color to sell a product.

Note: Refer to MCPS, *Commercial Art, Instructional Guide and Resource*, 1980, for additional suggested performance objectives and sample units.

Printmaking

Concepts

Printmaking is the art form in which multiple images are produced off a plate or through a screen. Historically the printed image was a means of communicating illustrated themes, political statements, and information about events. Prints were relatively inexpensive and were often collected as works of art. Although new processes have evolved and technological advances have produced drastic changes, the original purpose for making multiple images remains.

Relief and stencil printmaking are direct ways of exploring positive and negative space. In relief printing, positive areas are the raised surfaces left on a block after the negative areas are cut away. In a stencil or serigraph, the positive or printed spaces are cut away, allowing the ink to pass through the screen, while the negative spaces are left to block out the ink. In print, the positive-negative relationship may vary depending on the values selected for each color. The illusion of a third color may be achieved by overprinting with transparent ink.

Silk-screen printmaking or serigraphy is basically an elaboration of the stencil process. A variety of block-out materials, from paper to photographic positives, may be used to obtain different kinds of screened images. Silk-screen printing originated in seventeenth century Japan, and during the twentieth century, it has grown in commercial art applications while continuing to be a fine art process. Today, photographic silk-screen processes are used to print on bottles and to make electronic circuits. For the hobbyist, nontoxic water-based systems are easiest and safest to use.

Instructional Objectives

Demonstrate an awareness of positive/negative space in a work of art by designing a relief or stencil print.

Demonstrate the ability to analyze the art or design of an historic period and make evaluative statements.

Identify health and safety precautions related to the art and craft processes studied.

Suggested Performance Objectives

Demonstrate an understanding of positive/negative shape by producing a multicolored block-print repeat pattern using either the reduction method or the multi-block method.*

*Sample lessons are provided.

Produce a multicolored serigraph using two paper block-outs and overlapping shapes.*

Design a multicolor silk-screen pattern in which positive and negative shapes and spaces are emphasized.*

Utilize one or two silk-screen techniques to produce an image which emphasizes texture.

Describe the methods of registration appropriate for silk-screening.

Compare works of contemporary North American serigraphers who use the paper stencil and the film stencil.

Utilizing cardboard, develop shapes to promote foreground, middle ground, and background.

Design and construct a simple cardboard block print using positive and/or negative shapes. (PR-4)

Compare the spatial designs of Oriental and Western woodblock prints.

Compare the registration techniques common to Oriental and Western relief prints.

Demonstrate wood engraving technique utilizing thin, parallel lines and end-grained wood.

Produce a self-portrait in either woodblock or linoleum emphasizing textures by the different cuts of the tool.

Produce a woodblock that utilizes the grain of the wood including the flaws, and incorporate them into the image desired.

Demonstrate the proper clean-up procedure for each printing process.

Demonstrate the correct use of tools for each printing process.

Demonstrate simple serigraphy. (PR-20)

Develop a positive-negative design relationship in print. (PR-26)

Create a silk-screen print using a spray lacquer block-out technique.

Sample Units

Performance Objective

Demonstrate an understanding of positive/negative shape by producing a multicolored block-print repeat pattern using either the reduction method or the multi-block method.

Suggestions for Instruction

The natural environment is a rich source for the artist in developing designs and patterns. African artisans create textile designs in geometric patterns which emphasize the use of positive and negative shapes derived from nature. Refer to *Art Design: Communicating Visually*, by Gilbert Clark and Enid Zimmerman, for examples of African motifs.

Show the film *Textiles and Ornamental Art of India*, and contrast African printed textile designs with those of India, Japan, and China.

Compare the topa cloth designs of Polynesia with today's printed fabrics. Refer to the chapter on decorated textiles in *Crafts Design* by Spencer Moseley and others.

Have students collect examples of various textiles designs such as wallpaper, carpet, fabric, and wrapping paper. Compare the characteristics which relate to the processes and materials used in each example.

Exercise A—Positive/Negative Shapes

Conduct a study in which students analyze the structure of natural forms. Have students make a list of basic structures and compare it with the chart in Appendix E. See pp. 6-9 in *Art as Design: Design as Art* by Sterling McIlhany.

Have students analyze positive/negative shapes by doing tracings or sketches of small sections of photographs of natural forms. Have students exchange their work and identify the traced sections in each other's work.

Have students make drawings of a still life arrangement concentrating on the negative shapes only. Display results and conduct a group critique. The object or objects should be apparent in each drawing as a result of seeing the negative shape.

Have students crop and enlarge a section of an upper case letter (for example in Bodoni Bold) and emphasize negative space with color or tone. Display student work and compare it with the original letter form.

Have students identify similarities among shapes used in native African and South American textiles and designs.

Have students create a design for repeat block printing. Refer to Reinhold Visual Portfolio #3 and discuss the Warhol painting of soup cans. Refer also to Japanese family insignia for examples of pattern variation.

Exercise B—Reduction Prints

Select a potato or other vegetable; cut it in half to get the largest surface possible. Cut away part of the surface to show how the remaining area in relief provides a printing surface. While demonstrating the printing process, be sure to emphasize repetition of shapes, positive and negative shapes, and rhythm and variation in design. Have students use their vegetables to print a reduction design using at least three colors. Encourage them to share vegetable blocks to create a multi-imaged print suggesting a landscape, still life, or figure. Demonstrate the reduction method of block cutting that uses more than one color.

Exercise C—Found Object Prints

Encourage students to bring in objects from home that are relatively flat, have an interesting texture,

NOTE: Numbers in parentheses refer to the printmaking section of the MCPS *Art Concepts and Activities Bank*.

* Sample lessons are provided.

and may be used to print from. For this assignment, objects with texture should be encouraged, particularly textures that are difficult to copy or transfer to another surface.

Provide a piece of cardboard, tagboard, or mat board on which to glue the objects. Demonstrate the wide range of compositional possibilities available by rearranging the objects before gluing them. Once the objects are glued and have dried, print from the raised surface. Discuss the interplay of positive and negative space in design. Make available different papers and materials, and encourage students to experiment with them. Some students may combine reduction and multi-block processes. Using linoleum, students will cut and print a design with one or both processes.

Assessment Measure

Have students, referring to a display of student prints, compare the results of the two processes by identifying characteristics of each.

Instructional Materials

Books:
Clark, Gilbert, and Zimmerman, Enid. *Art Design: Communicating Visually.*
Daniels, Harvey. *Printmaking.*
McIlhany, Sterling. *Art as Design: Design as Art.*
Moseley, Spencer and others. *Crafts Design.*

MCPS Films:
F-5602 *Exploring Relief Printmaking.*
F-1102 *Textiles and Ornamental Art of India.*

Other Resources:
Reinhold Visuals
Organization (Portfolio #3).

Performance Objective

Produce a multicolored serigraph using two paper block-outs and overlapping shapes.

Suggestions for Instruction

Show the class examples of paper block-out prints and point out the positive and negative areas. For examples, refer to J. I. Biegeleisen's *Screen Printing* and to Clifford Chieffo's *Silkscreen as a Fine Art.*

Demonstrate and discuss the variations of style and technique that apply to paper block-out.

Review each student's design and suggest additional color block-outs when needed. Discuss the overlapping of warm or cool colors, complementary colors, and analogous colors. The transparency of water-based inks can create new visual dimensions for the student. Discuss how these overlapping shapes can create positive or negative shapes.

Have students cut two stencils for a planned design, using newsprint, vellum, tagboard, or newspaper.

Demonstrate the properties of water-based inks and discuss the effects created when two inks overlap. Review problems of registration. Demonstrate matting and display techniques.

Identify maintenance and safety procedures for the use of tools and equipment. Safety rules should be posted in a large format.

Assessment Measures

Compare student prints with their original designs during individual critiques.

Instructional Materials

Books:
Biegeleisen, J. I. *Screen Printing.*
Chieffo, Clifford. *Silk Screen as a Fine Art.*

Performance Objective

Design a multicolor silk-screen pattern in which positive and negative shapes or spaces are emphasized.

Suggestions for Instruction

Silk-screen printmaking offers the artist a variety of techniques for producing multicolor designs. Paper, film, glue, tusche, and photo emulsion can be used as block-out materials for silk-screen printing. Compare early examples of printmaking with current achievements. Refer to Shorewood Reproductions *Marilyn Monroe* (silk screen) and *Moulin Rouge* (lithograph).

Demonstrate the process using a photo emulsion. Have students prepare designs on tracing paper or acetate. Make sure all areas to be printed are solid black.

Demonstrate how to stretch a silk-screen frame using polyester fabric. Refer to *The Complete Work of M. C. Escher,* and discuss the illusion of metamorphosis depicted in his work.

Have students, in designing their prints, emphasize the contrast of positive and negative shapes or spaces. Also suggest the juxtaposition of certain complementary colors to create illusions of space or vibration.

Refer to *Innovative Printmaking* by Thelma R. Newman for examples of the photo-emulsion technique and to the Hunt Speedball pamphlet for a description of the process.

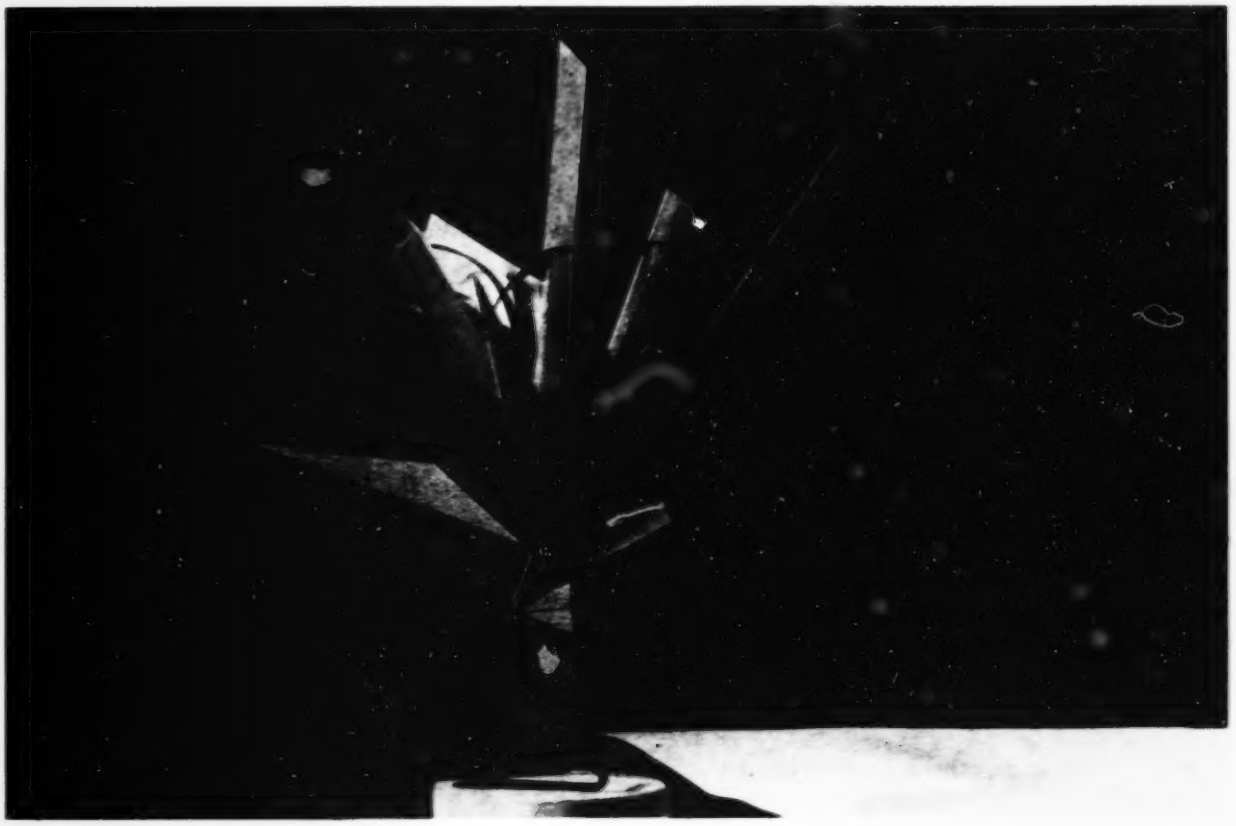
Assessment Measures

In a class critique discuss how students emphasized the relationship of positive and negative shapes in the final prints by comparing prints.

Instructional Materials

Books:
Escher, M. C., and Locher, J. C. *The Graphic Work of M. C. Escher.*
Heller, Jules. *Printmaking Today.*
Newman, Thelma R. *Innovative Printmaking.*
Peterdi, Gabor. *Printmaking.*
Ross, George F., ed. *Speedball Textbook for Pen and Brush Lettering.*

Other Resources:
Shorewood Reproductions:
Lautrec. *Moulin Rouge.*
Warhol. *Marilyn Monroe.*



Sculpture

Concepts

The role of sculpture in society has varied throughout history. Since prehistoric times, sculpture has been used to record events, provide ornamental decoration, and relate social, political, and economic themes. The ancient Greek sculptor immortalized gods and recorded myths. The Renaissance sculptor produced work with religious themes for the cathedrals while African sculptors provided masks, fetishes, and funerary objects for social and religious ceremonies. The contemporary sculptor is often concerned with form in an abstract sense. Some twentieth century architects create building forms that suggest sculpture.

Sculpture consists of positive and negative shapes and forms. Sculpture can be kinetic or stationary, dynamic or static. Sculpture can be light and delicate or heavy and solid. Sculpture can be made by modeling, carving, or constructing. The materials that the sculptor chooses to work with will influence the expressive character of a piece. Form often evolves from the nature of the material. The appearance of a sculptural form will vary with changes in setting and lighting.

Whether a sculpture is representational or abstract, the artist is concerned with the manipulation of line, shape, color, form, and texture to create rhythm, balance, proportion, and a sense of unity. The expressive use of art elements can lead students to create a recognizable figure, an abstract form, or an environment.

Notes to Teachers

Sculpture may be a challenge to students who cannot conceptualize a form. While creating sculpture, the student will have to anticipate the object's potential appearance from all sides and angles. The making of sculpture requires a perception of mass and space and a physical effort by the student to organize them.

The student should be prepared to acknowledge that working in three dimensions poses problems that are not present in making two-dimensional art forms. Sculpture occupies space and must appear unified from all directions; this requires the student to move around it or turn the object while analyzing and working from all sides. Instruction in the safe handling of tools and materials must be given, and safety precautions must be enforced at all times.

The following performance objectives and activities are designed to direct the teacher and student in exploring representational and abstract sculpture. The degree of difficulty varies.

Instructional Objectives

Identify the compositional and expressive elements in representational and abstract sculpture, and create an example of either one.

Identify works of art and craft that are representative of various cultures or ethnic groups, and name their characteristic features.

Demonstrate the ability to analyze the art or design of an historical period, and make evaluative statements.

Identify health and safety precautions related to the art and craft processes studied.

Suggested Performance Objectives

Use wire to produce a kinetic sculpture of a moving figure, and emphasize the use of line, rhythm, and space.

Use a bar of soap and paring knife to carve a subtractive sculpture demonstrating the use of positive and negative shapes and spaces.

Use various sizes of cut cardboard to construct a bas-relief which depicts a variety of light and dark areas.

Use heavy wire to build an armature on which clay or plaster can be applied to build up areas of form and space.

Use wood or plaster and a rasp to create a subtractive sculpture of a simplified form that can roll and feel comfortable in one's hands.

Choose a group of similar objects and arrange them into a sculpture that demonstrates rhythm in positive and negative spaces.

Use clay to model an object that demonstrates the plastic qualities of the medium.

Prepare a block of plaster and use carving tools to remove negative areas revealing positive forms and contrast of texture.

Collect found objects and arrange them inside a box to create a model of a personal environment.

Use fabrics sewn together to produce a soft sculpture demonstrating symmetrical balance.

Demonstrate the simplified technique for the lost wax process by using wax, plaster, and metal with a low melting point.

Describe the compositional structure of a sculpture in terms of the principles of design.

Identify various cultural and ethnic styles of sculpture by their specific characteristics.

Identify the historical period in which selected examples of sculpture were made.

Identify health and safety precautions related to mixing plaster and using chisels.

Design a figure sculpture using parts from a disassembled mechanical object.*

Make a plaster cast of a bas-relief using a sand or clay mold.

Compare the use of positive and negative elements in sculptures of Henry Moore and Alberto Giacometti.*

Compare sculpture in the round with relief sculpture.*

Produce a sculpture using the subtractive method of modeling.*

Demonstrate a process for making sculpture by casting.*

Demonstrate an awareness of the principles of design using a variety of inexpensive and available materials in fast three-dimensional sculptural sketches.*

Produce either a representational or an abstract sculpture of the human form that meets the criteria set by the teacher.*

Sample Units

Performance Objective

Demonstrate an awareness of the principles of design using a variety of inexpensive and available materials in fast three-dimensional sculptural sketches.

Suggestions for Instruction

This assignment is very open-ended and relies on the availability of inexpensive and collected materials as well as the ability of the teacher and student to find the materials. The sculptural sketches or maquettes are to be completed in a short period of time of at least one class period. The emphasis of instruction is on the integration of all sides and angles. No one side should be thought of as front or back.

In reviewing the principles of design for these quick sculptural sketches, refer to the sculpture of Giacometti, Picasso, David Smith, Calder, and Dubuffet. Examples of their work are available in the Hirshhorn Museum catalog, and some are available in slide form at the museum shop. Also the book *Calder's Universe* features a complete collection of the artist's work. All the pieces that make up Calder's circus are fine examples of quick sculpture sketches. Vol. 10, No. 3 of *Art and Man* has a section entitled "Creating Two Sculptures," which describes how to produce cardboard sculpture and a plaster sculpture in a style like Moore's.

Albers' preliminary course on design, which was taught at the Bauhaus, is presented in *Bauhaus 1919-1928* with numerous examples of the type of exercises suggested for this introduction to sculpture. Moholy-Nagy's preliminary course on the concept of space is also presented there.

Assessment Measures

Students will complete at least five of the following exercises and compare results with other students:

- Cut into a 3" x 5" card in such a way that it can be expanded. Use all of the card; nothing can be thrown away. See which student can create the tallest maquette.
- Assemble 5" squares of cardboard by slotting the edges. Create an egg sculpture that will roll.

*Sample lessons are provided.

- By cutting, expand a 3" square of paper enough to allow a student to step through it.
- Fold and cut a 3" x 5" card to explore the springing quality of the material. Try to create a whimsical circus character.
- Use paper or styrofoam cups to create a sculptural statement about concave and convex surfaces. Cut, score, and expand the surfaces.
- Use one 3" x 5" card and two dozen paper clips or thumbtacks to construct a modular sculpture. Cut and fold the card but do not bend paper clips.
- Cut a picture postcard and expand it into a three-dimensional sculpture.
- Use 18 inches of wire to make a line character of an animal or figure.
- Combine found objects—e.g., corks, tops, lids—with wire for a kinetic sculpture.
- Cut and bend wire to produce segments with movable joints that link together as a modular sculpture.
- Assemble straws to produce angular spaces that interlock with each other.
- Cut an egg carton and reassemble it using all the parts to produce a modular sculpture.
- Use spaghetti or florist wire to construct a space frame sculpture.
- Tie up several elongated balloons and assemble them as an inflated sculpture.

Instructional Materials

Books:

Ashton, Dore, and others. *The Hirshhorn Museum and Sculpture Garden.*
Bayer, Herbert, and others, eds. *Bauhaus: 1919-1928.*
Feldman, Edmund B. *Varieties of Visual Experience.*
Lipman, Jean. *Calder's Universe.*

Periodical:

"The Art of Sculpture," *Art and Man,* Vol. 10, No. 3.

MCPS Films:

F-5165 *Introduction to Sculpture Methods.*
F-7641 *Sculpture: The Forms of Life.*

Performance Objective

Compare sculpture in the round with relief sculpture.

Suggestions for Instruction

Show examples of the sculpture of Michelangelo, Bernini, and Donatello and contrast them with those of Rodin, Barlach, and Moore. Show slides of Ghiberti's doors and della Robbia's architectural reliefs and contrast them with works of such artists as Nevelson and Noguchi. Review the principles of design that pertain to the composition of sculptural forms in open space and in shallow space. Discuss light and shadow in sculptural design, paying attention to low, medium, and high relief.

Have the students study public buildings and sketch examples of relief sculpture that they find. Have them also observe and sketch free-standing sculpture, noting the locations and/or functions of each example.

Assessment Measures

Give a written test that includes such questions as:

- Describe the style(s) of sculpture located on public property.
- Select at least one of the pieces studied and describe the medium used and the theme or purpose for which it was intended.
- Define sculpture in the round and relief sculpture. Describe the characteristics of each.

Instructional Materials

Books:

Arnason, H. Harvard. *History of Modern Art.*
Feldman, Edmund. *Varieties of Visual Experience.*
Read, Herbert. *A Concise History of Modern Sculpture.*
Schinneller, James A. *Art/Search and Self-Discovery.*

Performance Objective

Produce either a representational or an abstract sculpture of the human form that meets the criteria set by the teacher.

Suggestions for Instruction

The figure has been the subject of a major percentage of the sculpture of the world. The first sculptures ever formed were of the human figure. Early figured sculptures represented religious and cultural beliefs, specific likenesses of individuals, or idealized statues of monumental heroes.

Before the students choose a medium in which to work, help them decide what kind of figures they would like to produce. Will it be a moving figure; a massive figure; a reclining figure; a monumental figure; or a small, slender figure? If a film of a sports activity is available, borrow it from your physical education department and refer to *Muybridge's Complete Human and Animal Locomotion.* Have students look at slides and pictures of figure sculptures done by sculptors of various historical periods. Discuss the materials and processes used. Refer to the appropriateness of certain materials for particular forms of visual expression. Compare one period or style with another. Consider the purpose for each sculpture. Did it commemorate a famous battle or an important historical event. Did it capture a likeness of a specific person, or was it more a suggestion of what that person stood for?

When students have determined the style of their sculptures, they select one of the previously mentioned performance objectives. Teachers should help students assess their abilities to complete a project. Less experienced students should start with the additive or modeling technique in clay. The experienced student should attempt the subtractive or carving technique using plaster, soap, feathers, stone, or wood.

Discuss the criteria for successful completion of a sculpture which are listed under Assessment Measures.

Assessment Measures

Critique student sculptures.

Suggested Criteria:

Are the basic compositional elements of line, form, space, texture, and rhythm well executed?

Is the figure balanced?

Does the figure effectively utilize positive and negative shapes?

Is there a contrast of surface texture?

Does the figure represent a personal statement?

Is there evidence of an awareness of a cultural, ethnic, or historical style?

Instructional Materials

Books:

Arnason, H. Harvard. *History of Modern Art.*
Ashton, Dore, and others. *The Hirshhorn Museum and Sculpture Garden.*
Bascom, William. *African Art in Cultural Perspective.*
Geist, Sidney. *Brancusi: The Sculpture and Drawing.*
Lipman, Jean. *Calder's Universe.*
Muybridge, Eadweard. *Muybridge's Complete Human and Animal Locomotion.*
Read, Herbert. *A Concise History of Modern Sculpture.*
Verhelst, Wilbert. *Sculpture: Tools, Materials, and Techniques.*

MCPS Films:

F-1037 *Art and Motion.*
F-5267 *Art from Found Materials.*
F-7800 *Art in America: Sculptures.*
F-7144 *Henry Moore: Master Sculptor.*
F-6381 *The Kinetic Sculpture of Gordon Barlow.*
F-1107 *Make a Mobile.*
F-7946 *Mobile.*
F-7641 *Sculpture: The Forms of Life.*

Performance Objective

Design a figure sculpture using parts from a disassembled mechanical object.

Suggestions for Instruction

Using illustrations, discuss the procedures and problems involved in producing a metal found-object sculpture. Refer to pp. 64-69 in Baldwin's *Contemporary Sculpture Techniques: Welded Metal and Fiberglass.*

Compare the representational junk sculptures of Picasso with the abstract pieces of David Smith and Anthony Caro. Discuss the subjects or themes represented in each style.

Demonstrate soldering and riveting techniques for joining thin scrap pieces of tin, copper, or brass. Show how liquid solder, liquid metal, or the new super glues may be used for joining heavier metal pieces and aluminum. Emphasize the precautions that must be taken in using these materials. Refer to the MCPS *Safety Handbook* for recommended procedures and cautions.

Have the student choose found metal materials and assemble a pleasing design that suggests a realistic form. Cut nails, washers, and screws are easily available. Paint or other finish may be applied.

Assessment Measures

Assess students' sculpture during individual critiques.

Suggested Criteria:

To what extent:

- Does the finished form suggest an animal or human figure?
- Is the pose or suggested movement representative of the species?
- Are all joints firmly secured?
- Does the finish enhance the composite form?

Instructional Materials

Books:

Ashton, Dore, and others. *The Hirshhorn Museum and Sculpture Garden.*
Baldwin, John. *Contemporary Sculpture Techniques: Welded Metal and Fiberglass.*
Reed, Carl, and Towne, Burt. *Sculpture from Found Objects.*

Performance Objective

Compare the use of positive and negative elements in the sculptures of Henry Moore and Alberto Giacometti.

Suggestions for Instruction

The work of Moore and Giacometti presents a dramatic illustration of contrasting methods of organizing form and space. In Moore's work, the rounded organic forms seem particularly suited to the carving technique. Giacometti's angular, attentuated forms can be easily understood from the standpoint of emotional content and additive technique. Their works make ideal models for an initial attempt at sculpture. Show examples of modern sculpture such as the works of Giacometti and Moore in filmstrips from the Modern Sculpture series produced by Visual Publications. The 20th Century Sculpture slide series produced by E.A.V. also includes work by Giacometti and Moore. Refer to Herbert Read's *Concise History of Modern Sculpture* and *The Art of Sculpture.* Discuss the concept of positive and negative space as it is used in these works of art. Compare differences in form and material that make a sculptural idea more suited to carving or to an additive process.

Discuss the differences between the additive and subtractive processes in sculpture fabrication. Show examples of additive and subtractive sculptures in process or use the film *Introduction to Sculpture Methods* to stimulate discussion. Also refer to Paul Wingert's *American Indian Sculpture.*

Assessment Measures

Have students model a series of figures using standing, seated, and reclining poses emulating the style of Moore or Giacometti. They should use water- or oil-based clay for these quick sketches. Evaluate all sketches in terms of suitability for use as the basis for a larger sculpture in plaster and gauze.

Have students select from their sketches a clay

model that is most suitable for carving or building directly in plaster.

Students choosing to work in the style of Henry Moore should mix plaster and an aggregate in a plastic bag, squeeze up a rough form, and then carve a final version of their clay model. Demonstrate these steps.

Students choosing to work in the style of Giacometti should build a small armature of rolled paper and wire, and then build up a form by adding small quantities of plaster.

Instructional Materials

Books:
Read, Herbert. *The Art of Sculpture.*
——. *A Concise History of Modern Sculpture.*
Wingert, Paul. *American Indian Sculpture.*

MCPS Film:
F-5165 *Introduction to Sculpture Methods.*

Filmstrips and Slides:
"Modern Sculpture."
"20th Century Sculpture Series."

Performance Objective

Produce a sculpture using the subtractive method of modeling.

Suggestions for Instruction

Discuss the work of Brancusi and refer to examples shown by Arnason and Selz. Contrast these with Henry Moore's work, which is also discussed and pictured in both books. Demonstrate the mixing of plaster and vermiculite, and pour a simple form in either a box or a bag. Demonstrate the techniques of plaster carving while discussing the subtractive sculpture process.

Using clay, students should prepare models of a figure or other form proportioned to fit the prepared plaster block. Students then translate the model in plaster. When carving is near completion, demonstrate methods for finishing plaster with paint, shoe polish, wax, or bronzing powder.

Assessment Measure

Have the student compare the carved piece with the clay model.

Instructional Materials

Books:
Arnason, H. Harvard. *History of Modern Art.*
Beecroft, Glynis. *Carving Techniques.*
Meilach, Dona Z. *Creating with Plaster.*
Selz, Peter. *Art in Our Times.*

MCPS Film:
F-5165 *Introduction to Sculpture Methods.*

Performance Objective

Demonstrate a process for making sculpture by casting.

Suggestions for Instruction

View and analyze several contrasting examples of bas-relief sculpture such as the works of della Robbia, Rodin, and Ben Nicholson. Using visual aids, discuss the process of casting from a clay mold. Point out the need for simple forms and the avoidance of undercut surfaces. Have students design simple forms in natural clay.

Demonstrate the mold-making procedures by pressing oil-based clay over the leather-hard water-based clay form, and review the steps in preparing plaster for casting. Have the students remove forms from the mold and pour plaster casts. Using examples, discuss several methods for finishing a plaster cast with bronzing powder or acrylics.

Discuss the meaning and relevance of titling a work of art. Review the titles given bas-relief sculptures by famous artists. Ask students to title their finished pieces.

Assessment Measure

Have the student compare the finished cast form with the clay original in terms of completeness of detail and quality of casting.

Instructional Materials

Books:
Ashton, Dore, and others. *The Hirshhorn Museum and Sculpture Garden.*
Kowal, D., and Meilach, Dona. *Sculpture Casting.*
Meilach, Dona Z. *Creating with Plaster.*

MCPS Film:
F-5165 *Introduction to Sculpture Methods.*

technology employed in a past and a present architectural style.

Make a guidebook of your neighborhood, showing things of interest to young people, places of historical interest, and available means of transportation.

Tape sounds common to a given location. Determine whether other students can identify the location.

Research famous buildings and monuments around the world. Display a collection of pictures with a world map, and pinpoint the location of each structure.

Identify several twentieth century art forms and their influence on our environment or life style.

Using glass as a dominant building material, develop a design for or construct a model of a beach or mountain cabin and incorporate sun control devices.

Design a piece of multipurpose furniture for personal use.

Analyze how sharing space makes us feel by constructing a diorama of a cheerful dentist office, or a place where people gather in the school or community.

List and compare the structural elements commonly used in human and animal habitats.

Note: Additional suggestions and sample lessons are presented in:

- MCPS, *Twentieth Century Art and Architecture: Instructional Guide and Resource* (1977)
- MCPS, *Environmental Design: Instructional Resource Guide, Grades 6-12* (1982)

Many other resources are available to support this area of study and are listed in the above guides.

Environmental education can also result from learning experiences using the resources around you.

An Instructional Guide and Resource, p. 19.)

Crop magazine pictures to illustrate changes in compositional impact.

Print and compare compositions of natural and human-made objects on a light-sensitive surface.*

Develop an essay of photographs or slides to record an event or tell a story.*

List and identify safety hazards related to the use of photo chemicals. (Refer to MCPS *Safety Handbook* or Appendix D of this guide.)

Develop a projected design by working directly on a film slide with wet or dry materials and discuss applications for its use.*

Discuss and demonstrate the illusion of movement (as in paintings by futurists) by restructuring photographs or pictures.*

List and identify careers in media production. (Refer to MCPS *Commercial Art: Instructional Guide and Resource.*)

Create a photo/slide essay or media production using two- or three-dimensional materials that represent individual cultural or ethnic origins.*

Select one of the traditional forms of visual art and identify how photography has effected a change.*

Sample Units

Performance Objective

Select one of the traditional forms of visual art and identify how photography has effected a change.

Suggestions for Instruction

The influence of photography, film, and television on the visual arts is evident. Review one of the visual arts such as portraiture and infer ways that photography caused a change. Show the students examples of various styles for painting portraits on pages 393-404 of Feldman's *Varieties of Visual Experience.* How was the artist affected? How did society react to the new media. Study examples of work by photo-realist painters such as Chuck Close and Audrey Flack. Some seemingly insignificant technological breakthroughs are very meaningful when attached to a specific media. Look at the photo silk-screens of Andy Warhol and the collages of Tom Wesselmann or Robert Rauschenburg. The benday dots in a Roy Lichtenstein painting were suggested by a photographic process used in color printing.

Assessment Measures

Students will complete one of the following exercises:

- Draw only the shadow areas of a portrait photograph and ink in a high contrast drawing.
- Use a high contrast ink drawing as the image for a photo silk-screen print.
- Create a montage by transferring photographic images published on a clay-coated paper using varsol or contact paper as a medium.

Instructional Materials

Book:

Feldman, Edmund. *Varieties of Visual Experience.*

Performance Objective

Create a photo/slide essay or media production using two- or three-dimensional materials that represent individual cultural or ethnic origins.

Suggestions for Instruction

A student's ethnic origin is an ideal subject for film, television, or photographs. The personal and unique background characteristics of each student lend themselves to a visual presentation. Students should collect objects that best represent their ethnic background, such as clothing from grandparents, crafts, special household utensils, ethnic foods, or childhood books and toys. Students should arrange these to be photographed or filmed. For the photograph or slide essay, have students select a few meaningful items and experiment with different compositions, using focus and lighting to accent the mood desired. Objects can be animated or analyzed by a narrator in a film or TV production. Music and language from a particular country can be a very simple and relevant source for a sound track. All the possibilities mentioned can easily involve a student or group of students in a media production that does not depend on student acting ability or the writing of a script and therefore allows the techniques of media production to be emphasized.

A number of collections representing the cultures of various countries are available from Evaluation and Selection and the Interrelated ARTS office.

Assessment Measures

Suggested Criteria:

Student work is critiqued in terms of:

- selection and choice of objects to represent ethnic origin
- arrangement of objects for compositional interest
- emotional impact and feeling for the cultural or ethnic background in the final product

Instructional Materials

Resource trunks from Evaluation and Selection and Interrelated ARTS.

Performance Objective

Print and compare compositions of natural and human-made objects on a light-sensitive surface.

* Sample lessons are provided.

Suggestions for Instruction

Man Ray set the stage for this system when he accidentally found that photographic paper recorded the shape of equipment left on it. Different materials produce "shadowgrams" with similar effects. A photogram is produced on photographic paper with chemicals. A sun print is produced with Diazo paper and ammonia or special nature print paper and water. Cyanotype printing is "sun printing" on cloth which has been treated with ferric ammonium citrate and potassium ferrocyanide.

A variety of items are placed on the surface to protect those surface areas from exposure to light. After exposure, the shapes created by the items are set with chemicals or water. Basic design principles should be emphasized.

Students can compare compositions in terms of positive and negative space, patterns, textures, size relationships of objects used, and repetition of similar shapes.

Students can experiment with and compare effects created by the use of transparent objects, translucent objects, curved objects, stencils, bar magnet patterns, or negatives.

Assessment Measure

The student will critique the product in terms of choice and arrangement of objects.

Instructional Materials

Books:

Haffer, Virna. *Making Photograms.*

Langford, Michael. *The Step-by-Step Guide to Photography* (p. 132).

Periodicals:

Morrison, Karl R. "Darkroom Images," *School Arts,* Nov. 1980, p. 41.

Shade, Richard T. "Introducing Photography to Gifted and Talented Students," *G/C/T* Nov./Dec. 1980, pp. 55-59.

Speight, Jerry, "A Basic Photography Program," *School Arts,* May 1981, pp. 28-41.

Supplies:

Sun print paper (nature print paper) is available from Chaselle Arts and Crafts, 9645 Gerwig Lane, Columbia, Md. 21046.

Performance Objective

Develop an essay of photographs or slides to record an event or tell a story.

Suggestions for Instruction

The essay is a series of pictures organized to give a more complete understanding of a topic than a single picture could provide. Magazine pictures and/or handmade slides may substitute for student-made photos. The organization of the product may be sequential or expand a theme. A picture series may also illustrate the movement of a form.

Photographers such as Duane Michals helped to pioneer this as an art expression, and magazines such as *Life* are famous for it. While many pictures need to be acquired in order to ensure choices to complete an idea, planning of the actual sequence or theme is essential to demonstrate quality control of compositional elements based on camera angle, size, spatial relationships, and lighting. The use of planning cards or a storyboard will help the student visualize and clarify these aspects.

The students might combine this activity effectively with another school subject or community effort. Displays may show photographs in a three-dimensional format. Background sounds and/or narrative may be incorporated on tapes to accompany slides. Captions may be added to a photo essay.

Assessment Measure

The students will analyze the product in terms of:

- the logical flow of parts of the series to complement the theme
- unity illustrated in each picture

Performance Objective

Develop a projected design by working directly on a film slide with wet or dry materials and discuss applications for its use.

Suggestions for Instruction

Handmade slides provide a practical means of demonstrating the effects of the projected image using available materials as a substitute for actual camera work. When slides of film collage or handmade slides are placed in slide mounts and projected, discussion can center around the dramatic effect of changing size and scale of an image because of lenses, projection distance, and color changes based on light and density. Review principles involved in composing any picture.

Design Activities for the Classroom by John Lidstone has a good explanation of the materials needed and the process for assembling slides.

In addition to using a variety of prepared slides, you might borrow slides of microscopic organisms from the science department to use as a stimulus for this activity. If possible, include slide examples of contemporary nonobjective painting for comparison. Students can do the following:

- Make dry slides by drawing or painting with a selection of transparent and opaque materials.
- Make lifted slides using contact paper and glossy magazine illustrations.
- Make wet slides using an oil or glue base to hold transparent materials.
- Scratch designs in old slides. Add felt-pen color areas to overexposed slides.

As a culminating activity, a series of slides can be projected with appropriate taped sound. More than one projector can be used. Project the image from behind the screen.

Assessment Measures

Have students list the differences in slides produced by the various methods.

Have students discuss the increasing uses of slides for entertainment, instruction, and commercial purposes.

Instructional Materials

Books:

Bourgeois, Jacques. *Simple Film Animation with and Without a Camera.*

Eastman Kodak Co. *Planning and Producing Slide Programs.*

Lidstone, John. *Design Activities for the Classroom.*

MCPS. *Visual Art: Instructional Guide, Grades 7 and 8.*

Performance Objective

Discuss and demonstrate the illusion of movement (as in paintings by futurists) by restructuring photographs or pictures.

Suggestions for Instruction

Throughout history, artists have tried to capture the idea of motion in still picture. Ancient Egyptians painted realistic figures of men in successive stages of the same operation and relied on the viewer to "read" the picture as a continuous action. Futurists carried this concept to unification of painted object and background as illustrated in paintings such as *Nude Descending a Staircase, Fighting Forms,* and *The Solidity of Fog.* Comic strip figures suggest rapid motion by making running legs, for example, look wheel-like, as do the little dog's legs in Balla's painting.

An effect of movement can be achieved by making a collage of thin strips cut from pictures. Select two identical photographs or pictures that show a definite line direction and cut each into thin strips. Reassemble the strips in order, alternating photographs, but placing each strip slightly higher or lower than the one before. The eye would like to move along a smooth edge, but the elongated, slightly irregular edge jars the eye, emphasizes details, and, by extension, indicates motion. An excellent example of this is the work of photographer Gerry Cranham, as shown in Campbell's *Exploring Photography.*

If two identical pictures cannot be found, the same effect can be achieved by leaving a small amount of space between the strips of one picture.

Additional Activities

Discuss panning and blur as other ways that the photographer indicates motion.

Collect examples of panning, blur, or other operations from magazine ads.

Assessment Measures

Have students make statements telling:

- how elongating an image creates a feeling of motion
- how the choice of picture(s) is important to the final result

Have students construct a collage depicting movement by juxtaposing strips of a photograph or picture.

Instructional Materials

Books:

Arnason, H. Harvard. *History of Modern Art.* Includes the following reproductions:

Balla, *Dynamism of a Dog on a Leash.*

——, *Flight of the Swifts.*

Boccioni, *Dynamism of a Cyclist.*

Luigi, *The Solidity of Fog.*

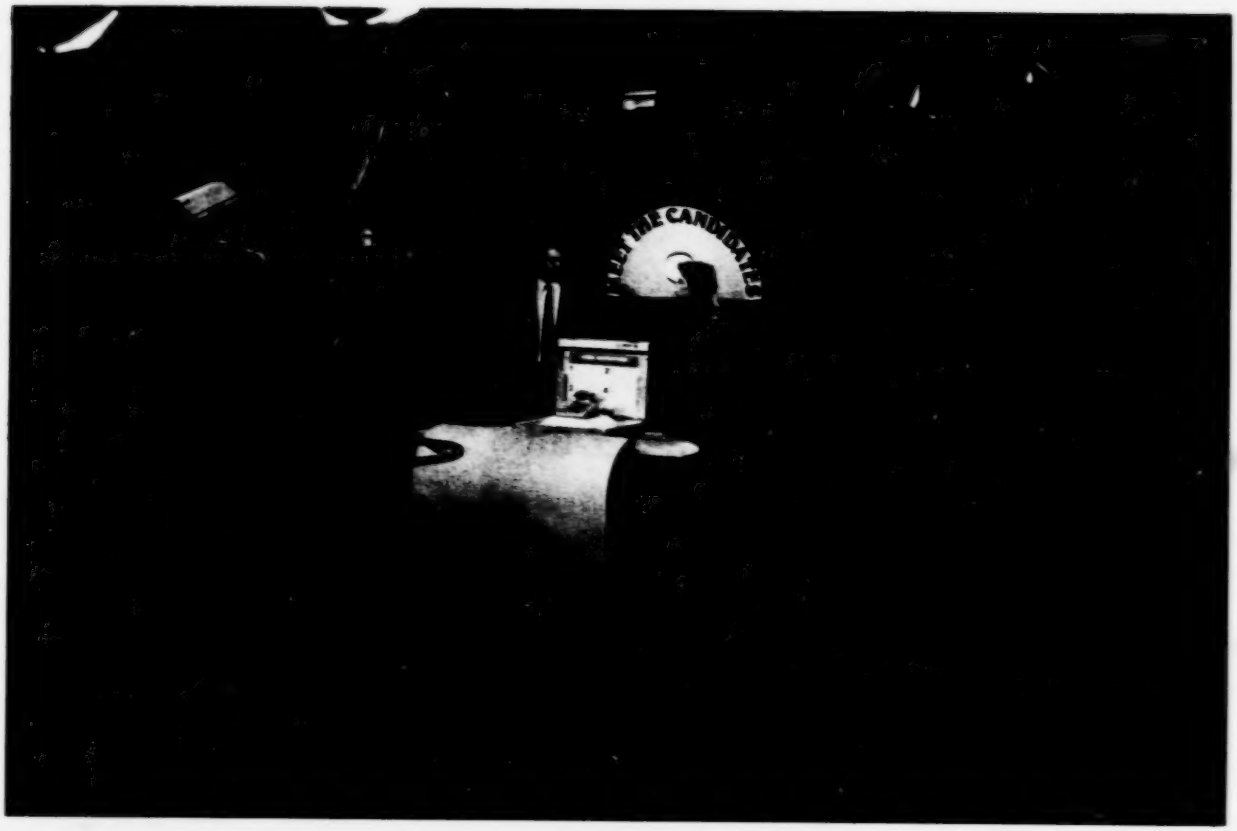
Marc, *Fighting Forms.*

Campbell, Bryn. *Exploring Photography.*

Other Resources:

Shorewood Reproductions:

Duchamp. *Nude Descending, No. 2.*



Film and Television

Concepts

The impact of film and television on the viewer is very similar; however, the technology used in their production is different. The film process was developed in the early part of the twentieth century using a light-sensitive glass plate as a medium. Television relies on electronic and magnetic tape. Commercial television broadcasting began in the late forties. There are many differences in the production methods of the two media, in their flexibility for classroom or personal use, and in the costs of equipment and supplies.

Notes to Teachers

In the art class, film is best used for animation since a greater amount of control and flexibility is possible. Television, on the other hand, lends itself to a more spontaneous form of production where an instant replay can be viewed and critical changes made on the spot. Both media can be used in group activities or by the individual student. However, because of the complex and varied needs of the media and the relatively short period of time allocated for this unit, group work is encouraged. In the professional world, many careers involve specific jobs in the production of a film or television program.

The importance of helping students recognize the impact of film and television on society cannot be overemphasized. As a culture we are just coming to realize the meaning of Marshall McLuhan's statement that "the medium is the message." Students are completely under the influence of television. A student's self-image, values, and hopes for the future are influenced by the daytime soaps, commercials, evening news, sitcoms, documentaries, sports, hyped specials, and films. Through a short study of these media, a student can become aware of the production effort required and the potential for social persuasion that both media possess.

Suggested Performance Objectives

Construct a thaumatrope, zoetrope, or stroboscope to illustrate principles of motion picture production.

Develop a flip book to demonstrate an action graphically.*

Integrate visual movement and sound in film by drawing on 16 mm leader or U-film and combining the results with sound.*

Make a videotape narrative using puppets.

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*Sample lessons are provided.

Visit and compare in-school and commercial or corporate television studios.

Produce a short animated film using the pixilation process.*

Produce a short animated film sequence by moving cut-out shapes on a background surface.

Name and identify camera angles and techniques. (See sample lessons in MCPS, *Visual Art: Instructional Guide, Grades 7 and 8.*)

Demonstrate an understanding of set design by constructing a diorama for a film or television stage set.*

Produce a videotape in which a work of art is viewed and analyzed; prepare a script and storyboard in advance.

Produce a short animated videotape using the rewind system and a real object.

Discuss the subject presented in a television show which relates to art.

Develop a storyboard that demonstrates the sequence of an idea or dramatizes an event.*

Select and organize photographic material into a montage that communicates an idea, attitude, or emotion.*

Sample Units

Performance Objective

Select and organize photographic material into a montage that communicates an idea, attitude, or emotion.

Suggestions for Instruction

The photo-montage is a quick and simple method for introducing students to the importance of subject matter in photography. A photo-montage is a group of photographs or pairs of photographs assembled to relate a theme or concept.

From magazines, newspapers, and pamphlets, students collect photographs on one specific theme or idea and arrange them on a flat surface to create an unusual juxtaposition of images. While the photographs are being moved around, a movie camera or TV camera can record the event. The movie film using double or triple frame shots will produce a very unusual pixilation of the objects when the film is processed and viewed. Use the TV camera to produce a documentation of the total event. When the final decision is made on the relationships of the photographs, carefully glue them in place.

This project can be a group assignment with three students rotating responsibilities.

Assessment Measures

Critique student work in terms of:

- how photographs relate to the photo montage theme or idea
- technical use of photo, film, and television equipment
- sensitivity to potential and limitations of montage

Instructional Materials

Book:

Kuhns, William, and Stanley, Robert. *Exploring the Film.*

Performance Objective

Develop a storyboard that demonstrates the sequence of an idea or dramatizes an event.

Suggestions for Instruction

A storyboard is a series of sketches in sequence that enables a student to organize or visualize a photo story, videotape, or film. The storyboard will help students plan their photographs or shots before they take them. In a series of rectangles, students will sketch out how they visualize the composition of a specific shot. Stick figures may be used. As the storyboard progresses, encourage the students to use contrast from one frame to the next. What angle should the shot be taken from? How close or far away should they be from the subject? Have they selected the most interesting and direct image to dramatize this particular part of the story? Is this the best location for this scene? How long is this shot? Notes should be made beside each frame on such things as camera angles, lighting, and duration of shot. All of these considerations should be worked out before the student has camera in hand to help ensure a concise and controlled film or photo essay as well as an organized plan for the production.

Assessment Measures

Critique student work in terms of:

- effective organization, which includes a beginning, an ending, and a climax
- variety and contrast of camera angle and shots
- clear idea of the event to be dramatized
- time allotted to each shot

Instructional Materials

Periodical:

"The Art of Photography," *Art and Man*, Vol. 9, No. 6, April/May 1979.

Performance Objective

Develop a flip book to demonstrate an action graphically.

Suggestions for Instruction

A flip book is a small book of 35 to 50 3" x 5" cards with a sequential drawing on each card. When the cards are flipped, there is an illusion of movement. To plan this project, students should draw an image on the first card and then decide what the

*Sample lessons are provided.

image will change into. The final image should be quite different from the first—for example, an apple as opposed to a person. The change or final image should be drawn on the last card of the flip book. Then, the middle card in the flip book should be drawn. This is best accomplished by combining the 2 images of the first and last cards using tracing paper to overlap them. Once the middle card is drawn, so that the change has halfway occurred, the cards one quarter and three quarters of the way through the book should be drawn. Once completed, these cards make it relatively easy for the students to fill in the remaining cards. The choice of subject matter for the flip book can be as simple or as complex as the student may wish to undertake; however, the degree of difficulty should be closely monitored by the teacher. Many exciting and unusual compositions will develop in the middle sections of the book owing to the gradual change of images. *Warning:* Do not let the student start on card one and work straight through the book. He/she may easily become frustrated because it is difficult to visualize the middle changes of the images.

Alternative Activity

Make an animation film using flip books as cels. A longer film may be composed by planning a series of flip books. Except for the first, each student begins drawing an image where the other stopped. The books are then filmed in sequence. Other students may develop the title and credit shots.

Assessment Measures

Have students exchange flip books for study.

Discuss how the images shown in student work change to produce a sense of action.

Instructional Materials

Book:

Bourgeois, J. *Simple Film Animation with and Without a Camera.*

MCPS Film:

F-6706 *Handy Dandy Do-It-Yourself Animation Film.*

Performance Objective

Integrate visual movement and sound in film by drawing on 16 mm leader or U-film and combining the results with sound.

Suggestions for Instruction

There are basically two techniques for working directly on blank 16 mm films. Transparent leader can be purchased inexpensively. Then with readily available materials such as felt-tipped markers or colored ink, drawings may be made on the leader to create a rhythm of lines and shapes or to animate simple subjects. The second technique is to scratch into the emulsion of blank film which has been exposed and developed.

Simple Film Animation with and Without a Camera by Jacques Bourgeois and others presents a complete guide for animation, but a few concepts are basic to all uses of film:

- The standard speed for movie projectors is 24 frames per second.
- All drawings must be spaced equally within the frame line.
- Only the actual moving parts of the drawing should change position in relation to the frame.
- Sharp colors are the most striking.

An effective way to introduce this process to a class might be to make a seven-foot leader. Splice the two ends together to form a loop in the projector so that images will be repeated without rethreading.

U-film is standard 35 mm size for use in a filmstrip projector. Drawing is done on the dull side of clear film, and as in the slide essay, sequencing skills are especially important. Exposed films can be made clear by removing the emulsion with laundry bleach.

Students may work individually or in groups to design and produce a progressive image. They also select a tape or record and record a suitable sound track to accompany the film. Students should be responsible for the operation of the equipment.

Additional Activities

Work as a class to develop a design and narrative idea with individuals or small groups producing segments of film which are then spliced together and projected with sound as one unit.

Assessment Measures

In a class critique of student work, have the students:

- Compare coloring materials and techniques in terms of content and effect
- Analyze the progression and sequencing of an idea
- Compare narrative and nonobjective films in terms of rhythm
- Evaluate individual ability to operate the equipment

Instructional Materials

Books:

Bourgeois, Jacques. *Simple Film Animation with and Without a Camera.*

MCPS. *Commercial Art: Instructional Guide and Resource.* (good for additional resources and activities)

———. *Visual Art: Instructional Guide, Grades 7 and 8.* (good for additional resources and activities)

MCPS Films:

F-7672 *The Light Fantastick.*

F-5363 *Pas de Deux.*

Performance Objective

Produce a short animated film using the pixilation process.

Suggestions for Instruction

Pixilation is a form of simple animation using three frames of film for each shot before the objects

are moved into their next position. Pixilation can use both two-dimensional and three-dimensional objects. The student can draw subjects or cut them out from magazines. The super 8 camera with a cable release is stationed on a tripod and the necessary flood lights are properly placed. On the flat surface below the camera, plan the objects to be used for animation on the desired background. Using the cable release attached to the camera, push the button three times to take three exposures. Next move the animation objects a short distance. Repeat the three exposures of film. Continue this process until the animation is completed. Pixilation filming often uses objects like a chair or a bicycle which appear to move on their own. Students may act as the animated object, moving for each shot to portray driving a car or eating unusual objects.

Assessment Measures

Evaluate the student's work against the following criteria:

- technical use of the camera and light setup
- smoothness and flow of object motion
- creative use of the pixilation process

Instructional Materials

Books:

Kuhns, William, and Stanley, Robert. *Exploring the Film.*

Lowndes, Douglas. *Film Making in Schools.*

MCPS Films:

F-4280 *Chairy Tale.*

F-4613 *Clay: Or, the Origin of Species.*

F-6706 *Handy Dandy Do-It-Yourself Animation Film.*

F-7798 *Mindscape.*

Performance Objective

Demonstrate an understanding of set design by constructing a diorama for a film or television stage set.

Suggestions for Instruction

Television and film sets provide a background or environment for a presentation. Set design is a three-dimensional image that may project neutrality, realism, or fantasy in support of a performance.

There are several basic categories of units for set design and construction: drapery, flats, architectural units, rostra, cyclorama, and profile pieces. While some shows are done on location and require no special set design, a stage or studio set may reflect one of several basic formats involving area staging, table setups, audience shows, two levels, or open-ended units. The success of the set is determined by its artistic interpretation related to its appropriateness to the production and to the facility in which it is performed.

The student can experience the basic process of designing for a film or television set by selecting an established show or by writing one. Before a model is constructed, all movements on stage must be analyzed and incorporated into a plan for staging. The student would then develop thumbnail sketches, establish a scale, and draw elevations in color. A list of standard sizes for props and set pieces should be used as a reference. Balance, proportion, and use of color are areas of major consideration in designing a set. Consideration must also be given to lighting the stage.

Additional Activities

Construct a chart showing how colors appear on a black-and-white television screen.

Expand the design to include plans for lighting.

Analyze selected TV shows in terms of creative use of sets and camera angles.

Assessment Measures

The teacher and students will critique the dioramas according to appropriateness of design to subject, balance, proportion, and use of color.

Have students name the basic categories of units for set construction.

Instructional Materials

Books:

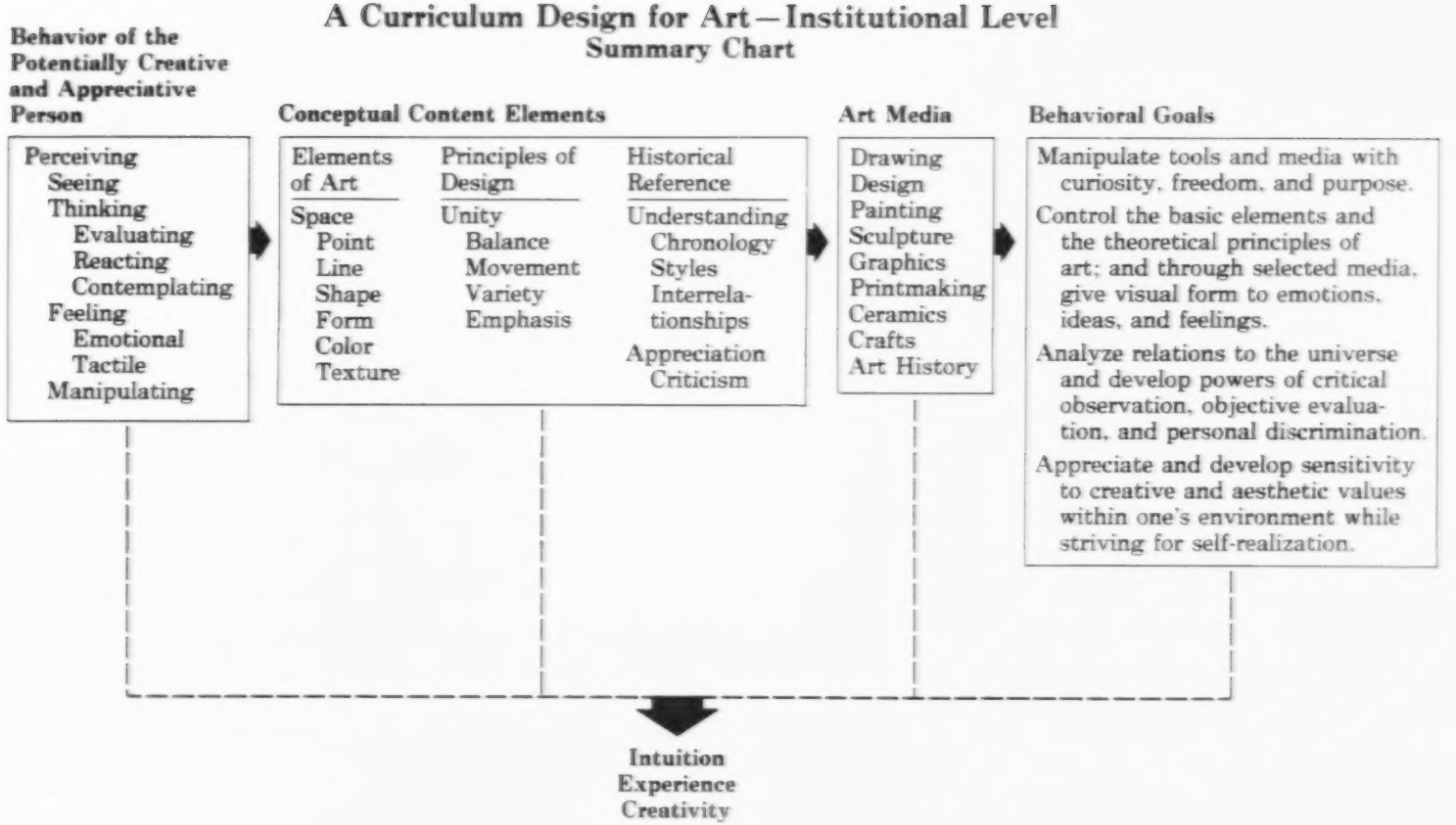
Lowndes, Douglas. *Film Making in Schools.*

Millerson, Gerald. *Basic TV Staging.*

——. *The Technique of Television Production.*

Appendix A

A Curriculum Design for Art—Institutional Level
Summary Chart



Source: Montgomery County Public Schools. *Curriculum Design: Institutional Level.* Rockville, Md.: MCPS, 1968.

Appendix B

Suggested Guidelines for Art Class Critiques

1) Review the objectives given for the assignment. The evaluation of the completed art object must be based on the specific objectives stated, materials, subject matter, time allowed, and purpose for the lesson.

2) Set up guidelines for making critical statements and review the learning that should take place. Lead the conversation in the direction of why something is good. State specifically how the student has mastered the stated objectives in doing the art object. Avoid totally negative wipeouts or putdowns. Do not accept blanket statements such as "I like it" or "I don't like it" or "It sucks." Anyone can make such statements. In a critique, the thinking and reasoning will also encourage others to agree or disagree, thereby leading to a good classroom critique. Before leaving one student example, repeat the positive or encouraging comment about the work.

3) Refrain from putting up the work of all the students at one time and comparing one student to the next. This discourages a student and only destroys confidence. Critique one work at a time on the basis of its own merits and its fufillment of objectives.

4) At the beginning of critiques, the teacher will have to elicit most of the questions and probe the class for responses. An ideal objective for the teacher in a critique session is to be a listener while class discussion moves along on the students' enthusiasm and motivation. Most of the time, students hear each other and understand each other better than if the teacher translates something said by the student.

5) When it is appropriate and where it supports a specific objective, refer to the following:

- aesthetic considerations
- elements of art
- principles of design
- sources of ideas and subject matter
- historical resources (similar examples in masterpieces)
- materials and techniques
- the artist (needs and ego)
- appropriate applications

There is no way all these topics can be covered in one critique. However, if the critique should call for one of the above-mentioned topics, expand the subject to broaden the scope of the critique. A good practice is to conduct critiques at the midpoint of the lesson and continue with individual critiques throughout the lesson.

Appendix C

Outstanding Women Artists (partial listing)

Anne Arnold
Alice Baber
Joe Baer
Lee Bontecou
Romaine Brooks
Margaret Taylor Burroughs
Rosalba Carriera
Mary Cassatt
(Sister) Mary Corita
Anne Vallayer-Coster
Elaine De Kooning
Sonia Delaunay
Deborah DeMoulpied
Sally Drummond
Alexandra Exter
Audrey Flack
Helen Frankenthaler
Jane Frielicher
Artemisia Gentileschi
Nancy Stevenson Graves
Nancy Grossman
Grace Hartigan
Barbara Hepworth
Malvina Hoffman
Anna Hyatt Huntington
Barbara J. Jones
Lois Mailou Jones
Frida Kahlo (Rivera)
Angelica Kauffman
Kathe Kollwitz
Lee Krasner
Judith Leyster
Dorthea Lange
Marie Laurencin
Elizabeth Vigée-Lebrun
Edmonia Lewis
Loren MacIver
Escobar Marisol
Agnes Martin
Maria Martinez
Alice Trumbull Mason
Joan Mitchell
Berthe Morisot
Mary Moser
Anna (Grandma) Moses
Gabriele Munter
Alice Neel
Louise Nevelson
Georgia O'Keefe
Maria Van Oosterwyck
I. Rice Pereira
Niki de Saint Phalle
Anne Redpath
Bridget Riley
Augusta Savage
Sophie Taeuber-Arp
Alma W. Thomas
Anne Truitt
Suzanne Valadon
Ruth Vollmer
Sylvia Wald

A more extensive listing is available in the following:

A. Harris and L. Mochlin, *Women Artists 1550-1950* (N.Y.: Alfred Knopf, 1979).
E. Fine, *Women and Art* (Montclair, N.J.: Abner Schram, 1978).
H. Munsterberg, *A History of Women Artists* (N.Y.: Clarkson N. Potter, 1975).
K. Peterson and J. Wilson, *Women Artists* (N.Y.: Harper & Row, 1976).

Outstanding Native American Artists (partial listing)

Popovi Da—potter, San Ildefonso
R. C. Gorman—painter/sculptor/printmaker, Navajo
Helen Hardin —painter, Santa Clara
Joan Hill—painter, Cherokee
Allan Houser—sculptor, Apache
Oscar Howe—painter, Sioux
Glenn LaFontaine—ceramics
Charles Lloma—jewelry, Hopi
Joseph Lonewolf—potter, Santa Clara
Julian Martinez—potter, San Ildefonso
Maria Martinez—potter, San Ildefonso
Grace Medicine Flower—potter, Santa Clara
Lloyd New—art director, Cherokee
Kevin Red Star—painter, Crow
Fritz Scholder—painter/printmaker, Mission
Willard Stone—sculptor, Cherokee

Outstanding Afro-American Artists
(partial listing)

Alston, Charles •
Andrews, Benny
Bannister, Edward M. •
Barthe, Richmond
Bearden, Romare •†
Benson, Patricia †
Bereal, Ed †
Brown, Elmer
Carter, Robert
Catlett, Elizabeth
Clark, Claude †
Cortor, Eldzier
Crite, Allan •
Dean, Hilliard †
Delaney, Beauford
Delaney, Joseph
Douglas, Aaron
Douglass, Robert
Duncanson, Robert S. •
Edmondson, William †
Evergood, Phillip •
Gilliam, Sam †
Hampton, James †
Hayden, Palmer †
Holder, Geoffrey •
Hollingsworth, A. C.
Hunt, Richard †
Johnson, Malvin Gray †
Johnson, Marie
Johnson, Sargent †
Johnson, William Henry †
Johnston, Joshua
Jones, Marilou
Lawrence, Jacob •†
Lee-Smith, Hughie •
Lewis, Norman
Lloyd, Tom
McNeill, Lloyd †
Mayhew, Richard
Moore, Martha •
Morehead, Scipio
Motley, Archibald •
Noss, Daniel †
Overstreet, Phillip •
Pippin, Horace •
Reason, Patrick
Sebree, Charles †
Stovall, Lou †
Tanner, Henry O. •†
Thomas, Alma †
Thompson, Bob •†
Thrash, Dox †
Waring, Laura Wheeler †
Wells, James L. †
White, Charles
White, George W., Jr. †
Whitlock, Mary Ursula
Whitney, Anne
Wickey, Maria
Wiley, Lucia
Williams, Walter •
Wilson, Ellis †
Winslow, Mary
Woodruff, Hale •
Woods, Marcy
Wright, Alice Morgan
Wright, Margaret H.

• Shorewood Publications
† National Museum of American Art

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Appendix D

General Health and Safety Procedures for Art Classes

The art classroom often includes materials and processes that are used in industry or professional studios which may be potentially hazardous to health and safety. Art teachers and students should inquire about the hazards of art materials and follow safe procedures for their use. Exposure to toxic substances may be through inhalation, ingestion, or absorption through the skin. Exposure to safety hazards may result from improper procedures or poorly maintained equipment and facilities. Constant awareness of potential or immediate hazards and the inclusion of related health and/or safety information with each lesson will remove dangers from the classroom and provide students with sound work habits for the future.

Art and photography teachers have the responsibility for instructing students in the proper safety procedures related to each process and for providing health hazard information on the materials being used. This information should be given orally and in written form, and then reinforced through discussion, visual aids, and safety quizzes. Teachers also have the responsibility for supervising students as they work to ensure that safe procedures are being followed and that the areas in which students work are safe.

Only teachers are permitted to mix glazes, photography chemicals, dyes, and other toxic powders. This must be done in a spray booth while wearing clean rubber gloves and, if necessary, a respirator. Teachers with respiratory problems should avoid mixing powders and using solvents. Containers of mixed solutions must be lidded, permanently marked, and stored safely.

The following safety procedures apply to all art classrooms:

Develop an awareness of the classroom environment and make adjustments to correct improper lighting, temperature, and ventilation in the room. Develop an awareness of other potential health and safety hazards. Maintain easy access to a fire extinguisher and, if necessary, a fire blanket.

Submit a memorandum to the school principal about any malfunctioning equipment or hazardous working condition.

Maintain a clean and orderly classroom and storage area. Wet floors are potentially hazardous. Clean up spills immediately. *Dust accumulation in ceramic areas must be avoided.* Use a wet mop or vacuum regularly. Wash tabletops frequently. *Do not* sweep or brush clay, glaze, or plaster dust.

Include health and/or safety information in all instruction that relates to potentially hazardous tools, materials, or procedures, such as scissors, pens, knives, carving chisels, glazes, and paints.

Post safety and health precautions in appropriate work areas.

Remove asbestos-containing materials, lead-based glazes, metal enamels and paints, and benzene from the classroom.

Do all spraying in a working spray booth or outside when air is moving.

Dry clays may not be mixed in schools. Mix glazes, dyes, and photo chemicals in a spray booth. Wear goggles or safety glasses. An approved respirator may be used temporarily until adequate ventilation is provided. (See NIOSH/OSHA Standard 1910.133.)

Store respirators, goggles, and safety glasses in a clean, airtight container, plastic bag, or cabinet. Clean the skin contact surfaces of these devices with a detergent soap and water after each use. (See OSHA Standard 1910.134.)

Use permanent felt-tip markers only in well-ventilated rooms and limit the number in use.

Store flammable liquids in a fire-rated cabinet. Do not pour flammables down a sink drain. Dispense flammables from a fire-rated container. Dispose of flammable waste rags in a self-closing metal waste container.

Restrict the use of all acids and solvents. Use them in a spray booth or other well-ventilated area. Store containers of acids and hazardous solvents on a lower shelf in an approved cabinet. Keep containers of acid and solvent covered when not in use. Label all containers with permanent markings.

Restrict open-flame operations to an open-flame room or booth. Keep all flammable materials and liquids away from kilns or open flame.

Wear appropriate gloves or use other protective means to avoid contact with such materials as acids (photographic, etching), solvents, asphaltum, ammonium dichromate, heated metals and ceramics, brush cleaners, epoxy, and solvent-based glues.

Wear goggles and other protective clothing during such operations as grinding, buffing, using an electric saw, carving stone, or pouring acids. Keep edged tools sharpened. Do not pour liquid metals.

Wear work clothing in the studio and launder it frequently.

Restrict the use of potentially hazardous solvents and solvent-based inks, paints, and dyes. Follow manufacturer's directions for use.

Caution students who wear contact lenses to avoid fumes and dust concentrations. Provide approved eye protection or have students remove contacts.

Wear safety spectacles with full side shields or goggles during potentially hazardous operations.

Do not eat or drink in an art room, ceramic studio, or darkroom.

Operate power tools in compliance with the rules in sections 8-4 to 8-44 of the MCPS *Safety Handbook*. Also see the *Safety Handbook* for other relevant information.

Toxic Materials

Any materials or solvents labeled toxic or hazardous to your health must be used with extreme caution. Some art materials are considered too hazardous to be used in the instructional program. These include such materials as:

- Metalic putty and thinners
- Epoxy resins and liquid plastics
- Lacquer and lacquer thinner
- Plastic cements containing ethylene dichloride or methylene chloride
- Some photography chemicals
- Spray adhesives
- Paint and varnish removers

In addition, the following materials are banned from classrooms and must not be used:

- Arsenic
- Asbestos-containing products
- Benzene
- Carbon tetrachloride
- Lead-based glazes, paints, copper enamels, inks
- Powdered clays
- Solvent-based silk-screen inks and dyes
- Soapstones
- Vermiculite

Paper Cutters

Install the paper cutter near a corner of the room or against a cabinet away from work and circulation areas, and request maintenance from your principal when needed.

Restrict the use of the paper cutter to responsible adults or secondary students. *Never permit elementary students to use the paper cutter.*

Remind responsible adults to exercise caution when using the paper cutter. They must concentrate upon the cutting task and check that fingers and clothing are out of the way of the cutting edge.

If the elementary school art room is used for afterschool activities, secure the arm of the paper cutter with wire, rope, or a lock.

Crayon and Wax Melting Procedures

The following precautions must be taken:

A double boiler type of container, a thermometer, and a U.L.-*approved* temperature-controlled hotplate or electric skillet must be used.

Makeshift containers must not be used in the melting process. Never use an open flame to melt waxes or paraffin. (Overheating releases toxic fumes.)

Any off-bid heating device must be approved by MCPS maintenance staff.

Heating devices must be located on a noncombustible surface. Combustibles must be kept at least two feet away from heating devices.

Paraffin must be clean and care must be taken to prevent any impurities or water in the melt. Do not use chlorinated synthetic waxes. Do not use carbon tetrachloride as a wax solvent.

Only teaching staff may pour or move hot paraffin, and the heating process must be under constant supervision of the teacher.

Adequate classroom ventilation must be maintained during the entire process. Wax melting should be done when windows can be opened to improve ventilation.

Proper Use of Kilns

Kilns are to be fired only when a teacher is on duty or when a responsible adult can monitor the firing.

Preheating the kiln the preceding day may be necessary to reach a desired temperature. *Do not fire kilns overnight without direct supervision.*

Protect the eyes with a tinted welders lens when observing kiln heat.

Operate kiln sitters according to the manufacturer's directions.

Have the cord, plug, and timer regularly checked by a maintenance worker.

Enameling kilns must be placed under an exhaust hood during firing.

Ceramic Restrictions

No lead or lead-based glazes are permitted in schools. The ceramic glazes provided by the warehouse are considered safe for classroom use with proper handling and firing procedures. Secondary teachers who are formulating their glazes must recognize the toxic quality of some elements and compounds and restrict or prohibit their use in the classroom. *Only teachers may mix glazes. This must be done in a spray booth while wearing clean rubber gloves. An approved respirator may be needed if ventilation is inadequate.* Students may use premixed liquid glazes and engobes only.

Ceramic materials such as the following are potentially hazardous to your health and should be restricted or prohibited:

- Antimony
- Barium compounds
- Beryllium oxide
- Bismuth subnitrate
- Boron compounds
- Cadmium compounds
- Chromium compounds
- Cobalt compounds
- Copper compounds
- Flourspar
- Lead compounds
- Litharge
- Lithium carbonate
- Manganese compounds
- Mercury
- Nickel compounds
- Potassium carbonate
- Silicas (flinty feldspars)
- Silver nitrate
- Talcs
- Uranium oxide
- Vanadium compounds
- Zinc chromate

Store all glaze powders, elements, and compounds in lidded containers. Mark all containers with perma-

nent labels. Include a restriction on the use of the materials listed above. Wash hands after handling glazes. Avoid spraying glazes. Check spray booth for proper functioning. *Never* sandpaper dry clay projects.

Soldering, Welding, and Plastic Forming

Avoid inhalation of lead fumes from solder. Use a soldering iron, not a torch. *Avoid the use of zinc chloride flux.* Wash hands after handling lead. Clean contaminated surfaces with a wet sponge. *Welding and brazing* are prohibited in art rooms. *No plastics* may be cut, formed, or cemented in the classroom.

Painting, Printmaking, and Dyeing

Pigments, vehicles, and solvents should be presumed to be capable of producing toxicity unless labeled AP or CP. Pigments, including those in pastels and chalks, are most hazardous in the powdered state. Solvent paints and inks may not be used below the tenth grade. Oil pastels are preferred for use at all levels. *Pigments containing arsenic oxide, chromate, mercury, and lead must not be used.* They may occur in colors like chrome green, emerald green, some cobalt violets, zinc yellow, chrome yellow, flake white, molybdate orange, true Naples yellow, and vermilion. Other pigments like cadmiums are also potentially hazardous and should be used with caution. Avoid contact with fingers and mouth. Wash hands after use. (Refer to an art hazards manual for listings.)

Aerosol sprays, air brushes, and spray guns are hazardous since they produce fine mists and can be flammable. Use a spray booth or provide good ventilation. Use a safe hair spray instead of fixatives.

All solvents, and solvent-based inks and dyes are hazardous and should be treated cautiously. Keep containers covered and store solvent rags in an approved safety can. In printmaking restrict the use of acid and wear rubber gloves when wiping plates. Be sure that proper ventilation is provided. Substitute mineral spirits or other less toxic solvents for turpentine. Restrict the use of rubber cement. *Avoid carbolic acid, chromic acid, hydrofluoric acid, toluene, xylene, styrene, PCB, n-hexane, and methyl butyl ketone.*

Photography

Only teachers may mix photographic chemicals. This must be done in a spray booth while wearing eye protection and clean rubber gloves.

Read labels on chemical containers and follow precautions stated.

Avoid direct contact with chemicals, avoid splashing, and clean up spills. In case of skin contact, wash thoroughly and apply an antibacterial detergent skin cleanser. If fluid gets into the eyes, flush eyes with clear water for 15 minutes and seek medical attention.

Dispose of used photo chemicals by pouring them one at a time into a sink with plenty of running water.

Avoid using toners, intensifiers, and all photoresist chemistry.

Cover all trays and bottles of solutions when not in use.

Farmer's reducer is safest; however, it will release hydrogen cyanide gas under certain conditions.

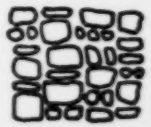
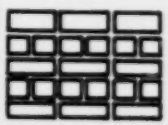
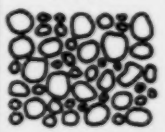
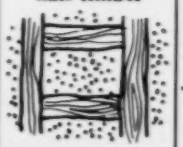
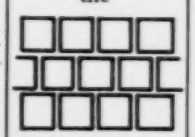
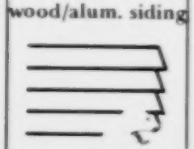
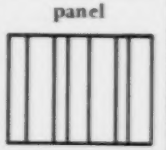
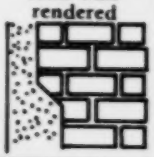
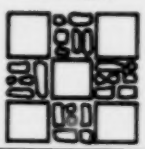
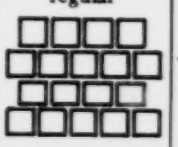
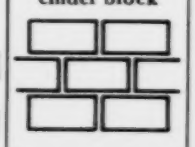
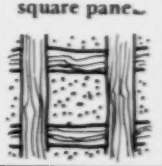
Always add acids to water, never the reverse. Store acids in a safe place.

Color photography chemicals are toxic. Restrict their use to a slotted exhaust-hood area. Wear gloves, goggles, and an approved respirator when mixing and handling color-processing chemicals.

Many photographic compounds are highly corrosive to the skin. A complete listing and suggested precautions are available in *Overexposure: Health Hazards in Photography* by Susan Shaw.

An analysis of potentially hazardous artists' materials is available in the *Health Hazards Manual for Artists* and *Artist Beware: The Hazards and Precautions of Working with Art and Craft Materials* by Michael McCann. These and other safety books may be ordered from Center for Occupational Hazards, Inc., 5 Beekman Street, New York, N. Y. 10038.

Appendix E

	1	2	3	4	5	6	7	8
A WALLING	stone 	brick 	cobble 	half-timber 	tile 	plaster	wood/alum. siding 	panel 
B WALL TECHNIQUE	solid wall rendered 	mixture 	irregular	regular 	cinder block 	tall panels	square panels 	
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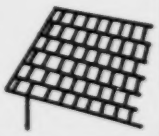
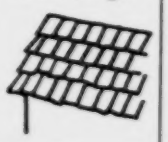
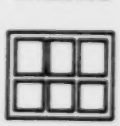
D ROOF MATERIALS	tar paper	slate 	wood shingle 	sheet metal	clay tile	asbestos shingle	tar and gravel	
E WINDOWS	lancet	transomed	mullioned 	elongated	dormer	multiple	bay	fan

Example of the kind of chart that can be used to code architectural elements and details.

Appendix F

Art Activities That Support the Teaching of Reading

Post vocabulary words along with visual examples of their meaning. Definitions can be developed in group discussions and different kinds of tests may be given.

Display masterworks of art and label them with pertinent information. Biographical paragraphs may be provided for student study and for reference in compiling written reports.

Label work areas, storage spaces, and/or tools and materials. Identification tests may be given.

Provide time for students to select and make projects from the *Art Concepts and Activities Bank.*

Review newspaper clippings of current events and gallery shows. Post articles or reproduce them. Have the class or a group of interested students discuss them. Reproductions of the works referred to in the clippings should be made available to students during discussions.

Where textbooks are available, make short reading assignments related to specific project activities.

Have students develop titles for completed artworks and for improvised still life compositions.

Have students make various lists of elements that relate to environmental or applied design, e.g., identify the activities that occur in a given space (home or other) prior to developing a design.

Have students write advertising copy that will be included in a graphic or product design.

Have students write a script for a short video/slide tape or movie film using animation, pixilation, or live action.

Have students develop a new dialogue for a cartoon strip or television commercial.

Provide crossword puzzles using art terms. Advanced students may design a puzzle.

Use worksheets to develop or reinforce specific concepts.

Have students write self-evalution statements or complete checklists on individual projects or on a unit of instruction.

Provide study sheets in which questions are asked about the content of a film or about the pieces viewed on a field trip.

Student Bibliography

Art History

Arnason, H. Harvard. *History of Modern Art: Painting, Sculpture, and Architecture.* rev. ed. New York: Abrams, 1977. BATAB #005122023

Painting, sculpture, and architecture in the twentieth century. Good black-and-white and color reproduction. Styles and trends are presented in chronological order.

Bascom, William. *African Art in Cultural Perspective: An Introduction.* New York: W. W. Norton, 1973. BATAB #025595245

A well-illustrated text which discusses the history of African art.

Bayer, Herbert, and others (eds.). *Bauhaus: 1919-1928.* New York: The Museum of Modern Art, 1972 (reprint of 1938 edition). BATAB #004230612

An historical document of the years that the Bauhaus was in operation. Many interesting ideas for teaching the school's major contributions to art.

Brommer, Gerald F. *Discovering Art History.* Worcester, Mass.: Davis, 1981.

Explores mainly Western art in chronological order. A chapter on non-Western art discusses cultural influences; a glossary and pronounciation guide is included.

Faulkner, Ray. *Art Today.* 5th ed. New York: Holt, Rinehart, and Winston, 1974.

An approved county text approaches the subject of art appreciation not only through the acquisition of knowledge but also through the development of sensitivity to attitudes, emotion, and personal preferences.

Feldman, Edmund. *Varieties of Visual Experience.* 2nd ed. Englewood Cliffs, N.J.: Prentice-Hall. BATAB #543819485

An interesting collection of art organized into art themes rather than chronologically. Good black-and-white and color reproductions.

Gettings, Fred. *The Meaning and Wonder of Art.* New York: Golden Press, 1969. O.P. BATAB #003366855

An art history book for beginners.

Klein, Mina C., and Klein, Arthur H., *Kathe Kollwitz: Life in Art.* New York: Schocken, 1975.

A study of a woman artist and her emotion-ridden work, which obsessed her and others.

Laude, Jean. *The Arts of Black Africa.* Berkeley, Calif.: University of California Press, 1971.

More than a survey of the cultural and artistic heritage of black Africa, this paperback analyzes the sources and development of African art. A comparative survey chart of related historical events is also included.

LLoyd, Christopher. *A Picture History of Art.* New York: E. P. Dutton, 1979. O.P.

Over 1,760 illustrations of Western art with 900 in color. A chart of art periods and bibliographical notes on artists are included.

Read, Herbert. *The Art of Sculpture.* New York: Ballinger, 1964. BATAB #002979454

An illustrated critical overview of the history of sculpture.

——. *A Concise History of Modern Sculpture.* New York: Oxford University Press, 1964. BATAB #00271874x

This is a classic work on sculpture appreciation and has excellent illustrations of definitive pieces of sculpture.

Selz, Peter. *Art in Our Times: A Pictorial History, 1890-1980.* New York: Harcourt, Brace, Jovanovich, 1981.

A study of art categorized by subject matter or theme.

Schinneller, James A. *Art/Search and Self-Discovery.* Scranton, Pa.: International Textbook Company, 1975.

An approved textbook, this large volume deals with the characteristics and scope of the visual arts in both the past and the present. Chapters focus on an art form rather than a chronological survey. Numerous photos and diagrams contribute to the easy-reading text.

Spencer, Cornelia. *Made in Japan.* New York: Alfred A. Knopf, 1963. O.P. BATAB #003154327

History and handicrafts of Japan with descriptions of culture and philosophical motivations behind art and handicraft.

Commercial Art

Refer to the bibliography published in the Montgomery County Public Schools instructional guide on *Commercial Art.*

Crafts

Albers, Anni. *On Weaving.* Middletown, Conn.: Wesleyan University Press, 1965. BATAB #004640241

Discussion of textile fundamentals handsomely illlustrated. Essentially for serious professional students.

Ball, F. Carleton, and Lovoos, Janice. *Making Pottery Without a Wheel.* New York: Van Nostrand Reinhold, 1965.

This book is a classic on hand-building techniques, profusely illustrated, and a valuable resource in the classroom.

Belfer, Nancy. "Batik: Designing on Fabric with Heated Wax and Dyes," *School Arts,* Jan. 1978, pp. 20-25.

An overview of batik processes including historical origins, materials and techniques. Excerpts from Mrs. Belfer's book *Designing in Batik and Tie Dye.*

——. *Designing in Batik and Tie Dye.* Worcester, Mass.: Davis, 1972. BATAB #544545753

This is a "how-to" book with color illustrations. It is easy to read, and the directions are easy to follow.

Berensohn, Paulus. *Finding One's Way with Clay.* New York: Simon and Schuster, 1972. O.P.

Gives detailed pinch-pot instruction with many project ideas. Also covers how to color clays with oxides.

Brock, Virginia. *Pinatas.* New York: Abingdon Press, 1966. O.P. BATAB #003950875

Many different designs for constructing pinatas starting with balloons.

Brummitt, Wyatt. *Kites.* New York: Western Publishing, 1971. O.P. BATAB #543866645

This small paperback book is profusely illustrated with diagrams of kites accompanied with directions for their construction.

Christopher, Frederick J. *Basketry.* New York: Dover, 1952. BATAB #543507416

One hundred and fifty-five illustrations clearly explain a variety of methods.

D'Amato, Alex, and D'Amato, Janet. *Quillwork: The Craft of Paper Filigree.* New York: M. Evans & Company, 1975. BATAB #030860229

Projects and techniques.

D'Amato, Janet, and D'Amato, Alex. *African Crafts for You to Make.* New York: Julian Messner, 1977. O.P. BATAB #005915457

Most examples are for woodcraft but can be adapted. (Covers musical instruments, games, dwellings, clothing, masks.)

Hennessey, James, and Papanek, Victor. *Nomadic Furniture One.* New York: Pantheon Books, 1973. BATAB #017647606

Based on the premise that the average American moves every two or three years, this book talks about and shows how to make furniture that folds, stacks, or knocks down for packing. It also includes a section on human measurement and resultant needs.

Hills, Pat, with Wiener, Joan. *The Leathercraft Book.* New York: Random House, 1973. O.P.

Paperbound. Techniques well illustrated. Tools and supplies listed.

Horn, George F. *Crafts for Today's Schools.* Worcester, Mass.: Davis, 1972.

Each chapter explains the fundamental tools, techniques, and materials associated with a particular craft.

Jablonski, Ramona. *The Paper Cut-Out Design Book.* Owings Mill, Md.: Stemmer House, 1976. BATAB #543858642

This is an excellent source book for creating and adapting the paper cutting heritage of this folk art of many different countries.

Johnston, Meda P., and Kaufman, Glen. *Design on Fabrics.* 2nd ed. New York: Van Nostrand Reinhold, 1981.

Good basic text covering all methods of fabric design where the decoration results from color applied directly onto the fabric through printing, painting, or dyeing. Clearly illustrated (not in color) with materials and equipment defined for each technique and a brief historical account of each technique.

Keller, Ila. *Batik: The Art and Craft.* Rutland, Vt.: C.E. Tuttle, 1966.

Historical chapter illustrated with ancient designs from Indonesian provinces. Explains modern Western methods with good illustrations of contemporary work.

Kinney, Jean, and Kinney, Cle. *Twenty-three Varieties of Ethnic Art and How You Can Make Each One.* New York: Antheneum, 1976. O.P.

An introduction to the art and craft of 23 cultures around the world.

Lindemeyer, Nancy, and Vaughn, Ciba. "Make It a Christmas to Remember with an Album of Heirloom Patterns," *Better Homes and Gardens,* Dec. 1977, pp. 90-95.

A description of craft projects such as marblized paper, crewel embroidery, needlepoint, and other holiday-related designs.

Maile, Anne. *Tie-And-Dye as a Present-Day Craft.* New York: Taplinger, 1970.

A technical "bible" of tie dye techniques and materials. Clear illustrations and suggestions for projects. Advanced. Good.

Manley, Seon. *Adventures in Making: Romance of Crafts Around the World.* New York: The Vanguard Press, 1959.

The story of some of the people who create and perpetuate the world's rich heritage of handicrafts—U.S. Indians, Hawaiian featherwork, tapestries of Europe, Irish illuminated manuscripts.

Meilach, Dona Z. *Contemporary Batik and Tie Dye.* New York: Crown, 1973. BATAB #018649580

This author always makes her process books creative, colorful, and inspirational.

——. *Creative Carving: Materials, Techniques, Appreciation.* Chicago: Contemporary Books, n.d.

Overview of materials generally carved. Fair

chapters on wood and plastics. Descriptive photographs good; accompanying text clear.

——. *Macrame Accessories.* New York: Crown, 1972. O.P.

Advanced, creative ways with macrame for clothing and jewelry.

Monk, Kathleen. *Fun with Fabric Printing.* New York: Taplinger, 1969. BATAB #515963666

Good for schools since it presents methods of fabric dyeing that use cheap, easily obtainable materials.

Moseley, Spencer, and others. *Crafts Design: An Illustrated Guide.* Belmont, Calif.: Wadsworth, 1962. O.P.

Very clear illustrations and phtographs with supporting text make this an invaluable classroom aid. Good introductory chapter on design. Crafts explained are paper, bookbinding, weaving, decorated textiles, leather, clay, mosaics, and enameling. A professional approach to design in terms easily understood by secondary students.

Muehling, Ernst. *The Book of Batik.* rev. ed. New York: Taplinger, 1981.

Very clear outline of each step in making the batik. Materials listed. A few color illustrations and many black and white. Good for student and teacher.

Nelson, Glenn C. *Ceramics.* 5th ed. New York: Holt, Rinehart, and Winston, 1984. O.P.

This is a studio handbook that covers all aspects of the ceramic process in an easily understood style. The first part of the book deals with a critical interpretation of significant historical and modern works.

Newman, Sandra Carrie. *Indian Basket Weaving.* Flagstaff, Ariz.: Northland Press, 1974. O.P.

"How-to" information for Pomo, Yurok, Pima, and Navajo baskets along with cultural, social, and geographical information.

Oka, Hideyuki. *How to Wrap Five More Eggs: Traditional Japanese Packaging.* New York: Weatherhill, 1975.

Interesting book about Japanese packaging. Second "egg" book on this idea.

Plath, Iona. *The Decorative Arts of Sweden.* Magnolia, Mass.: Peter Smith, 1966.

Comparison of past and present. Many good black-and-white illustations about textiles, glass, metal, wood, paintings.

Rainey, Sarita R. *Wall-Hangings: Designing with Fabric and Thread.* Worcester, Mass.: Davis, 1971. BATAB #008604452

Design ideas and instructions using several different methods.

Regensteiner, Else. *The Art of Weaving.* 2nd ed. New York: Van Nostrand Reinhold, 1981. O.P.

Traditional weaving patterns with one chapter on off-the-loom wall hangings.

Samuel, Evelyn. *Introducing Batik.* New York: Watson-Guptill, 1968. O.P.

Good "how-to" book. Recipes given. Illustrations of projects with directions for them. Classroom aid.

Sargent, Lucy. *Tincraft for Christmas.* New York: William Morrow, 1969.

Tin cans are turned into jewelry, mobiles, trinkets, and decorations. Complete instructions.

Slivka, Rose, ed. *Crafts of the Modern World.* New York: Horizon Press, 1968.

A book of illustrations of international contemporary crafts. Good classroom source book.

Vlach, John Michael. *The Afro-American Tradition in Decorative Arts.* Bloomington, Ind.: Indiana University Press, 1978.

Excellent past and present history. Many black-and-white photographs to show basketry, musical instruments, woodcarving, quilting, pottery, boatbuilding, architecture, and graveyard decoration.

Waller, Irene. *Design Sources for the Fiber Artist: From Fiber to Fabric.* Worcester, Mass.: Davis, 1979.

Excellent for the advanced student.

Yanagi, Soetsu, and Leach, Bernard. *The Unknown Craftsman. A Japanese Insight into Beauty.* New York: Kodansha, 1980.

An interesting collection of the writings of Soetsu Yanagi. Deals with the Oriental idea of beauty and ceramics.

Design

Appleton, Leroy H. *American Indian Design and Decoration.* New York: Dover, 1971. BATAB #543586987

An excellent source book of North and South American Indian designs in clay, textiles, and wood. Has 700 black-and-white illustrations. Contains folktales of each tribe in prose and poetry.

Bevlin, Marjorie. *Design Through Discovery.* 4th ed. New York: Holt, Rinehart and Winston, 1984.

A theory of design as a natural development related to the universe.

Bourgoin, J. *Arabic Geometrical Pattern and Design.* New York: Dover, 1973 (reprint of 1879 ed.). BATAB #549660631

An extensive collection of Arabian tile designs that would be very useful in the development of geometrically based designs.

Bringham, J. *The Graphic Works of M. C. Escher.* New York: Ballantine Books, 1971. O.P.

Work introduced and explained in full by the artist. Reproductions of Escher's work in all media are excellent.

Christensen, Erwin O. *The Index of American De-*

sign. New York: Macmillan, 1950. O.P. BATAB #005597994

Shows 378 pictures from the 15,000 paintings housed in the National Gallery of Art of the crafts and folk art of the United States which had been painted in the 1930's as a WPA project.

d'Arbeloff, Natalie. *Designing with Natural Forms.* New York: Watson-Guptill, 1973. O.P.

Contains wonderful photographs of segments of nature that illustrate means of design, e.g., parts of cabbages, onions, eggshells, pineapples. An excellent resource.

Dreyfuss, Henry (ed.). *Symbol Sourcebook: An Authoritative Guide to International Graphic Symbols.* New York: Van Nostrand, 1984.

This dictionary contains over 200 pages of internationally recognized symbols including sections on basic shapes, color, and graphic forms.

Escher, M. C., and Locher, J. C. *The Graphic Work of M. C. Escher.* New York: Ballantine Books, 1976. O.P.

An overview of Escher's painted optical illustions.

Fabri, Ralph. *Artist's Guide to Composition.* New York: Watson-Guptill, 1971. O.P.

Discusses composition problems faced by artists and students alike. Composition is traced through different periods of art.

Frohman, Louis H., and Elliot, Jean. *A Pictorial Guide to American Gardens.* New York: Crown, 1960. O.P.

A guide to famous gardens in the United States, grouped by region. Not in print but available through the public library.

Helfman, Elizabeth S. *Signs and Symbols Around the World.* New York: Lothrop, Lee, and Shepard, 1967. O.P.

Covers picture writing, numbers, symbols in religion, signs for science and industry, and signs and symbols for today and tomorrow. Well illustrated with black-and-white drawings.

Horn, George F. *Visual Communication: Bulletin Boards—Exhibits—Visual Aids.* Worcester, Mass.: Davis, 1973. BATAB #022609903

A simple guide for producing visuals.

Horning, Clarence P. *Horning's Handbook of Designs and Devices.* New York: Dover, 1959. O.P.

Contains 1,836 basic designs and their variations featuring the geometry of space division as a foundation for decorative design. This is a useful resource for logos and trademark designs.

Laliberte, Norman, and Mogelon, Alex. *The Book of Posters.* New York: Blauvelt, 1970. O.P.

A colorful, profusely illustrated book. Presents modern poster design in a format that is very attractive to students.

Larcher, Jean. *Fantastic Alphabets.* New York: Dover, 1976. BATAB #486234126

A collection of designed alphabets based upon motifs from art deco, surrealism, and pop art sources.

Lehner, Ernst. *Symbols, Signs, and Signets.* New York: Dover, 1950. BATAB #544446917

An excellent source book for design.

Moholy-Nagy, Laszlo. *Vision in Motion.* Chicago, Ill.: Paul Theobald, 1947. BATAB #543819760

A general view of the interrelatedness of art and life. Examples of art by the students of Chicago Institute of Design.

Naylor, Maria (ed.). *Authentic Indian Designs.* New York: Dover, 1975. BATAB #486231704

A source book of 2,500 illustrations of North American Indian designs.

Plowden, David. *The Hand of Man on America.* Riverside, Conn.: Chatham Press, 1973. BATAB #008791309

This book of photographs makes a visual comment on the face of America. It portrays, in fine photography, the ways our landscape has been used and abused.

Rennert, Jack. *One Hundred Years of Bicycle Posters.* New York: Darien House, 1973.

This large, colorful book illustrates 100 years of growth of color lithography, along with the stylistic development of pictorial posters that deal with the theme of bicycles.

Rowland, Kent. *Pattern and Shape.* New York: Van Nostrand Reinhold, 1964. O.P.

This first volume of a series on looking and seeing compares natural and human-made forms.

Stevens. Peter S. *Patterns in Nature.* Boston: Little, Brown, 1974. BATAB #027652874

Contains hundreds of photographs, drawings, and comments about the structure in nature.

Von Frisch, Karl. *Animal Architecture.* New York: Van Nostrand Reinhold, 1983.

Profusely illustrated, well-written book on the types and uses of structures built by animals. This would be especially valuable when teaching sources of design in nature.

Wilson, Forrest. *Architecture: A Book of Projects for Young Adults.* New York: Van Nostrand Reinhold, 1968. O.P.

This small book describes the more commonly used architectural and engineering systems with simple, practical suggestions for demonstrating each system.

Drawing

Brommer, Gerald F. *Drawing: Ideas, Materials, Techniques.* rev. ed. Worcester, Mass.: Davis, 1978.

A good resource for many different drawing techniques. Very stimulating for students.

Holme, Bryan. *Drawings to Live With.* New York: Viking Press, 1966. O.P.

Each page is filled with drawings done at various times in history. Many styles are represented. A stimulating resource.

Johnson, Una E. *Twentieth Century Drawings, Part I, 1900-1940.* Boston: Little, Brown, 1964. O.P.

An excellent historical reference.

Pitz, Henry C. *Charcoal Drawing.* New York: Watson-Guptill, 1971. BATAB #543492451

Demonstrates the use of charcoal as a drawing medium for both interior and exterior scenes. Especially good for classroom use.

——. *Ink Drawing Techniques.* New York: Watson-Guptill, 1957.

Describes characteristics of pen-and-ink drawing and demonstrates many techniques.

Rosenberg, Jakob. *Great Draughtsmen From Pisanello to Picasso.* Cambridge, Mass.: Harvard University Press, 1959.

A survey of European draughtsmen from the fifteenth through the twentieth centuries. Contains 307 black-and-white illustrations.

Rottger, Ernst, and Klante, Driter. *Creative Drawing: Point and Line.* New York: Van Nostrand Reinhold, 1963. O.P.

This presents drawing as a form of creative play of dot and line. A very attractive source book of drawing techniques and ideas.

Environmental Design

Refer to the bibliographies published in the Montgomery County Public Schools instructional guide on *Environmental Design.*

Painting

"The Art of Design" *Art and Man.* Vol. 8, No. 3, Dec. '77/Jan. '78.

A review of student-developed designs with a preface on Philip Perlstein, Robert Indiana, and Harry Bertoia.

Ballinger, Harry R. *Painting Landscapes.* New York: Watson-Guptill, 1973. O.P.

An interesting commentary on picture planning, balance in composition, and location painting.

Brommer, Gerald F. *Transparent Watercolor: Ideas and Techniques.* Worcester, Mass.: Davis, 1973. BATAB #022644555

This is an excellent resource and could serve as a good text. Although reproductions are black and white, the examples are varied and interesting.

Cumming, Robert. *Just Look: A Book About Paintings.* New York: Charles Scribner's Sons, 1980. BATAB #68416339x

An inside look at paintings that will lead the reader to the appreciation of great artworks. Takes a look at the elements of paintings and how famous artists achieved their effects. Direct, on an elementary level. Full-color reproductions.

Davidson, Abraham A. *The Story of American Painting.* New York: Harry N. Abrams, 1974. O.P.

This profusely illustrated book traces the history of American painting from Colonial times to the 1960's.

Guptill, Arthur. *Watercolor Painting Step-By-Step.* rev. ed. New York: Watson-Guptill, 1967.

This is a rich store of important material which illuminates the most intricate techniques of the watercolorist's art.

"Henri Matisse—Creating with Shapes," *Art and Man.* Vol. 10, No., 2 Nov. '79.

The subject of shapes in painting is discussed with references to Matisse, Vermeer, Mondrian, and Cassatt.

Hoopes, Donelson F. *Sargent Watercolors.* New York: Watson-Guptill, 1976.

With this spontaneous, fluid medium, Sargent indulged in unrestricted brushwork in a rich, expressionistic way. The reproductions are in excellent color. The text is historical and documents major influences on Sargent's work.

——. *Winslow Homer Watercolors.* New York: Watson-Guptill, 1976.

This book is fully illustrated with color plates dealing with Homer's watercolors exclusively. The background, methods, and development of Homer's watercolors are explored in the text.

Pike, John. *Watercolor.* enlarged ed. New York: Watson-Guptill, 1983.

This book is based on the course of study at Pike's renowned watercolor school in Woodstock, New York. Clearly and systematically instructs the reader on the techniques, tools, and materials of the craft.

Taubes, Frederic. *Acrylic Painting for the Beginner.* New York: Watson-Guptill, 1971. BATAB #823000605

One of a series of books on painting by this well-known artist.

Photography

Andersen, Yvonne. *Make Your Own Animated Movies.* Boston: Little Brown, 1970.

Half a dozen different methods of animation and various camera techniques are described and illustrated in very simple, easy-to-understand terms.

"The Art of Photography," *Art and Man.* Vol. 9, No. 6, April/May 1979.

The main topic of this issue is photographing people, with a special feature on documentary photographer Dorthea Lange.

Bourgeois, Jacques. *Simple Film Animation with and Without a Camera.* New York: Sterling, 1974. O.P.

A short book with lots of visual examples. Explains techniques of simple animation and necessary tools and materials.

Campbell, Bryn. *Exploring Photography.* New York: Hudson Hills, 1979.

This book resulted from research for the BBC television series of the same name. Emphasizes visual ideas rather than practical instruction.

Eastman Kodak Company. *The Joy of Photography: A Guide to the Tools and Techniques of Better Photography.* Reading, Mass.: Addison-Wesley, 1981.

A guide to photographic tools and techniques. All about the camera and darkroom and geared to increase awareness of visual perception.

———. *Mastering Composition and Light.* New York: Time-Life Books, 1983.

Discusses and illustrates how to plan a photo composition in terms of pattern, texture, controlled light, and perspective.

———. *Planning and Producing Slide Programs.* New York: 1983.

This 68-page booklet gives complete instruction on planning and producing slide programs.

Haffer, Virna. *Making Photograms.* London/New York: Focal Press, 1969. O.P.

An illustrated short course on how to make photograms as well as a collection of delightfully conceived images of many moods and levels.

Kuhns, William, and Stanley, Robert. *Exploring the Film.* Fairfield, N.J.: Pflaum-Standard, 1969. BATAB #544581207

A good book for classroom use for film study.

Langford, Michael. *The Step-by-Step Guide to Photography.* New York: Alfred A. Knopf, 1979.

A complete "how-to" photography book, this also includes the basic background of the art and a section of photographs by contemporary photographers.

Lowndes, Douglas. *Film Making in Schools.* New York: Watson-Guptill, 1969. O.P.

A good "how-to" book on the basic techniques of filmmaking in the classroom.

Madsen, Roy P. *Animated Film: Concepts, Methods, Uses.* New York: Interland Publishing, 1969.

A useful book describing historical viewpoints and covering all aspects of animation, including terminology. Very comprehensive and detailed.

Millerson, Gerald. *Basic TV Staging.* 2nd ed. Stoneham, Mass.: Focal Press, 1982.

Complete guide to all aspects of setting the stage for a filmed or taped production—from kinds of sets to lighting.

———. *The Technique of Television Production.* 11th ed. Hastings House, 1974.

A practical guidebook with numerous illustrations.

Pinney, Ray. *Careers with a Camera.* Philadelphia and New York: J. B. Lippincott, 1964. O.P.

Explores careers in photography. Describes the camera as an art tool and a means of communication.

Schillaci, Anthony, and Culkin, John. *Films Deliver: Teaching Creatively with Film.* New York: Scholastic, 1970. BATAB #010657053

One of the best and most original books on the use of film and methods for teaching film in the classroom.

Steichen, Edward. *The Family of Man.* New York: Museum of Modern Art, 1955. BATAB #671243802

Photographs from the photographic exhibition produced and shown first at the Museum of Modern Art in New York and then around the world. Has 503 pictures from 68 countries.

Upton, Barbara, and Upton, John. *Photography.* 2nd ed. Boston: Little Brown, 1981.

A single-volume version of the Time-Life library of photography.

Printmaking

Baskin, Leonard. *Baskin: Sculpture, Drawing, Prints.* New York: George Braziller, 1970.

Informative text about Baskin's views of his work and times. Excellent reproductions of all his work with a special interest in woodcuts.

Biegeleisen, J. I. *Screen Printing.* New York: Watson-Guptill, 1971. BATAB #544477367

This gives clear, concise steps through every phase of the screen process from producing a stencil to printing and registering multicolored work.

Biggs, John R. *The Craft of Woodcuts.* New York: Sterling Publishing, 1963. O.P.

Very simple book on woodcuts. Many pictures and drawings.

———. *Woodcuts.* New York: Sterling Publishing, 1958. O.P.

Detailed study of history and processes of wood engraving, linocuts, and prints by related methods of printmaking. Excellent black-and-white examples of relief prints. Examples demonstrate the magnitude of subject matter and techniques possible in the media.

Brommer, Gerald F. *Relief Printmaking.* Worcester, Mass.: Davis, 1977. BATAB #010259074

A survey book of relief printmaking.

Daniels, Harvey. *Printmaking.* New York: Viking, 1972. BATAB #011702087

A colorful, practical introduction to printmaking written for students. Printmaking techniques and illustrations of prints by great artists are shown in the 201 illustrations. A glossary and a list of supplies are included.

Frankenfield, Henry. *Printmaking.* Phila., Pa.: Hunt Manufacturing, 1964.

Covers wood, linoleum, and other readily available materials. Basic information for the novice.

Heller, Jules. *Printmaking Today.* New York: Holt, Rinehart and Winston, 1972. O.P.

Excellent studio handbook designed for the beginner as well as the experienced. Discusses the multiple print in the forms of relief, planography, intaglio, and stencil. Good illustrations of step-by-step procedure and interesting reproductions of original prints.

Ives, Colta Feller. *The Great Wave: The Influence of Japanese Woodcuts on French Prints.* Boston, Mass.: New York Graphic Society, 1980. BATAB #03143682x

Illustrates the influence of the Japanese on the French and places both cultures side by side to illustrate the Ukiyo-e woodcuts that inspired the individual prints as well as a brief history.

Kent, Cyril. *Starting with Relief Printmaking.* New York: Watson-Guptill, 1970. O.P.

Discusses tools, materials, and treatment of materials for special effects. Inks, presses, and prints are shown visually to convey interest in this technique.

Meilach, Dona Z. *Printmaking.* Pitman, 1965. O.P.

This very basic, yet informative book covers printmaking from monoprint to sophisticated print registration. Interesting reproductions give reader the feeling of the many possibilities of the printing process.

Mueller, Hans Alexander. *How I Make Woodcuts and Wood Engravings.* New York: American Artists Group, 1945. O.P.

An in-depth study of woodcuts and wood engravings with an interesting emphasis on color printing.

Peterdi, Gabor. *Printmaking: Methods Old and New.* rev. and exp. ed. New York: Macmillan, 1980.

A comprehensive study of the major printmaking methods: woodcut, line engraving, line etching, aquatint etching, sugar lift, wood engraving, soft ground etching, dry point, mezzotint, stipple, engraving, lithography, linoleum cut, cello-cut, calligraphy, metal graphic, and silk-screen print. Included in text is a glossary of printmaking terms as well as a special children's section at the end of the book.

Rothenstein, Michael. *Relief Printing.* New York: Watson-Guptill, 1977. O.P.

This is a comprehensive treatment of all forms of relief printmaking in an eye-catching format geared to student needs and interests.

Schachner, Erwin. *Step-By-Step Printmaking.* New York: Golden Press, 1970. O.P.

An excellent beginner's book on printmaking. Glossary of terms, list of suppliers, and bibliography are included as well as very interesting examples of printmaking.

Searle, Valerie, and Clayson, Roberta. *Screen Printing on Fabric.* New York: Watson-Guptill, 1968. O.P.

A very basic book concerning the rudiments of printing on fabric with inks, blocks, and screens.

Sternberg, Harry. *Woodcut.* Marshfield, Maine: Pitman, 1962. O.P.

An excellent book for the beginner. Illustrations are exciting and text is informative.

Takahashi, Seiichiro. *Traditional Woodblock Prints of Japan.* New York: Weatherhill, 1972. BATAB #019694199

Lavishly illustrated book about Japanese woodcuts from the mid-seventeenth to the mid-nineteenth century.

Sculpture

"The Art of Sculpture." *Art and Man.* Vol. 10, No. 3, Dec. '79/Jan. '80.

Baldwin, John. *Contemporary Sculpture Techniques: Welded Metal and Fiberglass.* New York: Van Nostrand Reinhold, 1967. O.P.

Features primarily the technique of working in fiberglass.

Geist, Sidney. *Brancusi: The Sculpture and Drawings.* New York: Harry N. Abrams, 1975. O.P.

The complete works of Brancusi in excellent black-and-white and color photographs.

Irving, Donald J. *Sculpture: Material and Process.* New York: Van Nostrand Reinhold, 1981. BATAB #005713641

A process book that deals with contemporary sculptural expression based upon the knowledge and tools offered by the scientific-industrial establishment. (paperback)

Kowal, D. and Meilach, Dona. *Sculpture Casting.* New York: Crown, 1972. O.P.

A good book for contemporary sculptural practices and use of materials.

Lipman, Jean. *Calder's Universe.* New York: Viking, 1976.

A complete book on Calder's sculptures, drawings, and paintings.

Little, Jon Madrian. *Beautiful Junk: A Story of the Watts Towers.* Boston: Little Brown, 1968. O.P.

This is a simple narrative about a boy's discovery of the Watts Towers and their creator. It is a very effective presentation of one man's attitude toward creativity and its effect on a young person.

Meilach, Dona Z. *Contemporary Art with Wood: Creative Techniques and Appreciation.* New York: Crown, 1968. BATAB #005311942

An excellent source book of ideas and techniques for carving and assembling sculptures in wood.

Rottger, Ernst. *Creative Wood Design.* New York: Reinhold, 1965. O.P.

Especially good for positive/negative design relationships. Excellent approach to three-dimensional, relief, and inlay work. Good photographs.

Verhelst, Wilbert. *Sculpture: Tools, Materials, and Techniques.* Englewood Cliffs, N.J.: Prentice-Hall, 1973.

A comprehensive book on all the sculptural techniques from the traditional to the contemporary.

Teacher Bibliography

Abbate, Francesco. *Pre-Columbian Art.* New York: Octopus Books, 1972. O.P.

Text gives history to accompany each page of photographs.

Adhemar, Jean. *Graphic Arts of the 18th Century.* New York: McGraw-Hill, 1964. O.P.

Mostly illustrations, but good reproductions. Text mostly historical anecdotes.

Anton, Ferdinand, and others. *Primitive Art: Pre-Columbian, North American, African, Oceanic.* New York: Harry N. Abrams, 1979.

Scholarly presentation of pre-Columbian, North American Indian, African, and Oceanic cultures. Profusely illustrated, mostly in color. Outstanding reference and classroom aid.

The Architecture of the Capitol under the direction of the Joint Committee on the Library. *Art in the United States Capitol.* Washington: Government Printing Office, 1976. O.P.

A collection of artwork found in the Capitol building. Useful in studying American sculpture and painting.

Ashton, Dore, and others. *The Hirshhorn Museum and Sculpture Garden.* New York: Harry N. Abrams, 1974.

The complete collection of the Hirshhorn Museum and Sculpture Garden in black and white and color. Great source of contemporary sculpture.

Bayer, Jonathan. *Reading Photographs.* New York: Pantheon Books, 1977. O.P.

This book originated as a catalog for an exhibition (London, 1977) for the purpose of analyzing photography over the past 70 years, basically through the urban landscape.

Beecroft, Glynis. *Carving Techniques.* New York: Arco, 1983.

Excellent for working with plaster especially; shows techniques clearly.

Birren, Faber. *Creative Color.* New York: Van Nostrand Reinhold, 1961. O.P.

Presents advanced color theory. This is especially good as a reference on transparency, luminosity, and irridescent effect.

———. *Principles of Color: A Review of Past Tradition and Modern Theories.* New York: Van Nostrand Reinhold, 1969.

A review of the major theories on color perception.

Brown, Dale. *The World of Velazquez.* New York: Time-Life Books, 1969.

Deals with the life and times of Velazquez. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Callen, Anthea. *Techniques of the Impressionists.* Secaucus, N.J.: Chartwell Books, 1982. O.P.

Detailed analysis of a number of impressionist paintings. Includes a chronological chart.

Campbell, Bryn. *Exploring Photography.* New York: Hudson Hills Press, 1979.

This book resulted from research for the BBC television series of the same name. Emphasizes visual ideas rather than practical instruction.

Chaet, Bernard. *The Art of Drawing.* 3rd ed. New York: Holt, Rinehart & Winston, 1983.

Discusses a wide variety of drawing techniques by referring to examples by well-known artists.

Chase, Judith. *Afro-American Art and Craft.* New York: Van Nostrand Reinhold, 1971. O.P.

Covers from traditional African art through slavery in colonial America to pioneer black artists to the present day. Has 250 black-and-white photographs.

Chieffo, Clifford. *Silk-Screen as a Fine Art: A Handbook of Contemporary Silk-Screen Printing.* New York: Van Nostrand Reinhold, 1967.

This is a complete handbook of contemporary methods of silk-screen printing.

Clark, Gilbert, and Zimmerman, Enid. *Art Design: Communicating Visually.* Blauvelt, N.Y.: Art Education, 1978.

Excellent guide to a basic fundamentals of art course. Includes lesson suggestions at varying levels with a separate teacher's guide.

Clifton, Jack. *The Eye of the Artist.* Westport, Conn.: North Light, 1973.

A comprehensive book touching briefly on all the basic skills necessary for the beginning student. Good examples of specific questions a student might ask.

Coughlan, Robert. *The World of Michelangelo.* New York: Time-Life Books. 1966.

Deals with the life and times of Michelangelo. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

De la Croix, Horst, and Tansey, Richard G. *Art Through the Ages.* 7th ed. New York: Harcourt, Brace, Jovanovich, 1980. O.P.

This edition of the well-known art history textbook includes time lines and charts in addition to more illustrations.

Dendel, Esther Warner. *Needleweaving . . . Easy As Embroidery.* Philadelphia: Countryside Press, 1971. O.P.

Innovative and exciting off-loom weaving combined with natural objects. Center section of color photographs; many black-and-white photographs and drawings. Clear, easily read text; excellent for the classroom.

De Reyna, Rudy. *How to Draw What You See.* New York: Watson-Guptill, 1972.

This deals with basic shapes in nature: the cube, cone, cylinder and sphere. Every natural object is reduced to its basic geometric form. Once this form is understood, the natural form can be drawn no matter how detailed it is. This book is out of print but available at the public library.

Di Valentin, Maria M. *Getting Started in Leather.* New York: Collier Books, 1972. O.P.

Good chapters on tools, materials, sources, and types of leather. One chapter is devoted to projects and covers the basic methods of working with leather.

——. *Practical Encyclopedia of Crafts.* New York: Sterling Publishing, 1975. O.P.

Comprehensive collection of instructions on all major crafts. Good illustrations and some background material.

Dockstader, Frederick. *Indian Art in North America.* Greenwich, Conn.: New York Graphic Society, 1972. O.P.

Comprehensive reference, which includes Mexican Indians. Extensive color plates.

Driskell, David C. *Two Centuries of Black American Art.* New York: Alfred A. Knopf, 1976. O.P.

Contains excellent color illustrations of black painting, sculpture, and crafts both in black and white and in color.

Edwards, Betty E. *Drawing on the Right Side of the Brain.* Los Angeles: J.P. Tarcher, 1979.

An excellent book for the teaching of drawing through a step-by-step system that encourages both creativity and artistic confidence.

Eimerl, Sarel. *The World of Giotto.* New York: Time-Life Books, 1967.

Deals with the life and times of Giotto. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Evans, Helen Marie. *Man the Designer.* New York: Macmillan, 1973. O.P.

Describes the basic elements and principles of design, discusses selected designers from all over the world, explains how various designers treat materials, and gives examples of the use of functional and decorative design principles in objects encountered daily. Includes the elements of light and motion. Designers also describe their personal philosophies in their approach to design. Well illustrated with photographs.

Fax, Elton C. *Black Artists of the New Generation.* New York: Dodd, Mead, 1977. O.P.

Biographical sketches of 20 contemporary blacks and their work. Excellent reading. Gives new dimensions to black art.

Feder, Norman. *American Indian Art.* New York: Harry N. Abrams, 1977. O.P.

Comprehensive book on American Indian art and crafts. Profusely illustrated in color.

Feldman, Edmund B. *Becoming Human Through Art.* Englewood Cliffs, N.J.: Prentice-Hall, 1970. O.P.

An in-depth study of historical, psychological, and theoretical art education viewpoints. An excellent resource for the changing attitudes of art, ethics, and aesthetics.

Foote, Timothy. *The World of Bruegel.* New York: Time-Life Books, 1968.

Deals with the life and times of Bruegel. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Frankenstein, Alfred. *The World of Copley.* New York: Time-Life Books, 1970.

Deals with the life and times of Copley. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Gatto, Joseph, and others. *Exploring Visual Design.* Worcester, Mass.: Davis, 1978.

An illustrated survey of the elements and principles of design. Design exercises are suggested.

Grigsby, J. Eugene. *Art and Ethnics. Background for Teaching Youth in a Pluralistic Society.* Dubuque, Iowa: William C. Brown, 1977. O.P.

Covers the basic ethnic groups in the United States: Black, Spanish speaking, and Native Americans. Good chapter on resources available to art educators. Discusses the impact of social issues and religion on ethnic art. Well-organized reference book. Illustrated.

Goldsmith, Lawrence C. *Watercolor Bold and Free.* New York: Watson-Guptill, 1980.

Sixty-four experimental ideas and techniques in watercolor.

Goldstein, Nathan. *The Art of Responsive Drawing.* 3rd ed. Englewood Cliffs, N.J.: Prentice-Hall, 1984.

Good beginning chapters. Excellent reproductions of drawings by significant artists. Extensive exercises for learning to draw. Somewhat academic in conclusions.

Hale, William H. *The World of Rodin.* New York: Time-Life Books, 1969.

Deals with the life and times of Rodin. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Hamer, Frank. *The Potter's Dictionary of Materials and Techniques.* New York: Watson-Guptill, 1975.

A good reference.

Harlan, Calvin. *Vision and Invention: A Course in Art Fundamentals.* Englewood Cliffs, N.J.: Prentice-Hall, 1969.

This is a course on art fundamentals based upon a study of the elements of form. It is a good resource book for ideas in presenting these concepts to students.

Harvey, Marian. *Crafts of Mexico.* New York: Macmillan, 1973. O.P.

Self-explanatory title. Good integration of Spanish words. Excellent pictures, history, and directions for making your own variations.

Held, Shirley E. *Weaving: A Handbook of the Fiber Arts.* 2nd ed. New York: Holt, Rinehart & Winston, 1978.

Comprehensive. Excellent source book for teachers.

Hennessey, James, and Papanek, Victor. *Nomadic Furniture One.* New York: Pantheon, 1973.

Every page illustrates a household item of furniture that was designed to be portable because it can be easily assembled and taken apart. Some pieces also consist of recycled materials while others are intended to be disposable.

Hill, Edward. *The Language of Drawing.* Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Paperback. Excellent study of the meaning of drawing as an individual art expression. Good analysis of important artists to define and defend point of view. Good illustrations.

Hills, Pat, with Wiener, Joan. *The Leathercraft Book.* New York: Random House, 1973. O.P.

Paperbound. Techniques well illustrated. Tools and supplies listed.

Hobson, R. L. *Chinese Pottery and Porcelain: An Account of the Potter's Art in China from Primitive Times to the Present Day.* New York: Dover, 1976.

An historical overview.

Holland, Nina. *The Weaving Primer.* Radnor, Pa.: Chilton, 1978.

Guide to inkle, backstrap, and frame looms. Clear directions for these simple looms. Especially good explanations of making and warping simple frame looms. Suggestions for projects suitable for beginning students. Good diagrams and illustrations.

Jung, Carl G. *Man and His Symbols.* New York: Doubleday, 1969.

Philosophical and psychological treatment of symbolism throughout history.

Kay, Reed. *The Painter's Guide to Studio Methods and Materials.* Englewood Cliffs, N.J.: Prentice-Hall, 1983

An analysis of major painting media with a review of pigments, grounds, and finishes.

Kent, Norman. *One Hundred Watercolor Techniques.* New York: Watson-Guptill, 1968. O.P.

In short articles, 100 different watercolorists tell what they feel is important concerning the painting of a watercolor. Amply illustrated.

Kepes, Gyorgy. *Language of Vision.* Chicago: Paul Theobold, 1944.

A theory on the dynamic organization and representation of images.

——, ed. *The Man-Made Object.* New York: George Braziller, 1966. O.P.

Presents a general evaluation of the human-made object as an important environmental factor in the shaping of our twentieth century mores, feelings, and values.

Koning, Hans. *The World of Vermeer.* New York: Time-Life Books, 1967.

Deals with the life and times of Vermeer. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Kranz, Stewart, and Fisher, Robert. *The Design Continuum.* New York: Van Nostrand Reinhold, 1966. O.P.

Beautiful examples of designs from nature.

Kuwayama, Yasaburo. *Trade Marks and Symbols.* New York: Van Nostrand Reinhold, 1973.

A comprehensive, profusely illustrated guide to more than 1,500 trademarks from all over the world.

Lanier, Vincent. *The Arts We See: A Simplified Introduction to the Visual Arts.* New York: Teachers College Press, 1982.

Interesting ideas on the teaching of the visual arts, particularly television and film.

Leonard, Jonathan N. *The World of Gainsborough.* New York: Time-Life Books, 1969.

Deals with the life and times of Gainsborough. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Leuzinger, Elsy. *The Art of Black Africa.* New York: Rizzoli International, 1979.

Complete anthology on African art. Chapters divided by area and tribe. Very good photographs.

Lewis, Samella. *Art: African-American.* New York: Harcourt Brace Jovanovich, 1978.

Comprehensive historical review of black American artists from 1619 to the present. Numerous plates are in color.

Lewis, Samella, and Waddy, Ruth G. *Black Artists on Art.* Volumes 1 & 2. Claremont, Calif.: Hancraft, 1971. O.P.

The two volumes include examples of art and statements by over 150 practicing black artists in America. A section at the end of each volume gives brief biographical sketches of these artists.

Lidstone, John. *Design Activities for the Classroom.* Worcester, Mass: Davis, 1977.

Describes the materials and processes for a variety of design projects, including slide making.

Lipton, Barbara, and Lipton, John. *Photography.* Boston: Little, Brown, 1970. O.P.

An excellent overview of the photographic process with an excellent gallery of photographs suitable for class critiques and discussions.

Lowry, Bates. *The Visual Experience.* Englewood Cliffs, N.J.: Prentice-Hall, 1967. O.P.

This is a critical history of art from the perspectives of the observer, the artist, and the critic.

McCann, Michael. *Artist Beware: The Hazards and Precautions of Working with Art and Crafts Materials.* New York: Watson-Guptill. 1979.

Safety precautions and hazards are presented for all art processes. Includes charts that show an analysis of most art-related chemicals and compounds.

——. *Health Hazards Manual for Artists.* New York: Foundation for the Community of Artists, 1975.

This booklet summarizes much of the information in the larger volume listed immediately above.

McFee, June King, and Degge, Rogena M. *Art, Culture and Environment: A Catalyst for Teaching.* Dubuque, Iowa: Kendall-Hunt, 1980.

Goes beyond the normal study of art to discuss art as cultural communication; advocates that learning be suited to readiness and experience rather than set by grade and age level. Foundations of art are emphasized, and the searching and expressing functions of art are analyzed.

McIlhany, Sterling. *Art as Design: Design as Art.* New York: Van Nostrand Reinhold, 1970.

An illustrated review of the relationships between art and design. Industrial and fashion design are mainly considered.

Meilach, Dona Z. *Creating with Plaster.* Chicago: Reilly and Lee, 1966.

Presents methods for forming and casting plaster as a fine art medium.

Montgomery County Public Schools. *Commercial Art: Instructional Guide and Resource.* Rockville, Md.: MCPS, 1980.

Montgomery County Public Schools. *Commercial Art: Instructional Guide and Resource.* Rockville, Md.: MCPS, 1980.

——. *Environmental Design: Instructional Resource Guide, Grades 6-12.* Rockville, Md.: MCPS, 1982.

——. *Survey of World Art: Instructional Guide and Resource.* Rockville, Md.: MCPS, 1977.

——. *Twentieth Century Art and Architecture: Instructional Guide and Resource.* Rockville, Md.: MCPS, 1977.

——. *Visual Art: Instructional Guide, Grades 7 and 8.* Rockville, Md.: 1985.

Morman, Jean Mary. *Art: Of Wonder and a World.* Blauvelt, N.Y.: Art Education, 1978.

Art textbook with teacher's manual. Ideas for student experimentation in various media. Emphasis on developing student awareness and sensitivity to natural and human-made forms.

——. *Art: Tempo of Today.* Blauvelt, N.Y.: Art Education, 1978.

Motivational and activity ideas are supported with pictures. Special section of ideas for film, television, photography, art, and science in addition to other art forms.

Morrison, Karl R. "Darkroom Images" *School Arts.* Nov. 1980, p. 41.

Describes the processes for making photograms using a paper stencil and a magnet with iron filings.

Mueller, Mary K., and Pollock, Ted G. *Murals: Creating an Environment.* Worcester, Mass.: Davis, 1979.

An overview of basic mural techniques, surface treatments, and design qualities. Color photographs illustrate various mural motifs.

Murphy, Richard W. *The World of Cézanne.* New York: Time-Life Books, 1968.

Deals with the life and times of Cézanne. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Muybridge, Eadweard. *Muybridge's Complete Human and Animal Locomotion.* New York: Dover, 1979.

A reprint of the three-volume set of action photos published in 1887.

National Geographic Society. *The Craftsman in America.* Washington, D.C.: The National Geographic Society, 1975. O.P.

Beautifully illustrated with photographs, this book discusses a variety of early American crafts and modern day craftspeople.

National Museum of American Art and Bermingham, Peter. *American Art in the Barbizon Mood.* Chicago: University of Chicago Press, 1976.

The black-and-white reproductions of landscape painting are excellent compositions to use as references. The text is interesting.

Naumann, Rose, and Hull, Raymond. *The Off-Loom Weaving Book.* New York: Charles Scribner's Sons, 1973. O.P.

Excellent, easy-to-understand instruction book on all kinds of weaving. Creative design ideas. Good photographs and diagrams.

Naylor, Penelope. *Black Images. The Art of West Africa.* Garden City, N.Y.: Doubleday, 1973. O.P.

Combines full-page black-and-white photographs of traditional carvings with poetry from the same area as the sculpture. Includes brief descriptions of the anthropological significance of the art.

Nelson, George. *How to See: A Guide to Reading Our Man Made Environment.* Boston: Little, Brown, 1977.

Literally a book on seeing, on awareness, treating it as nonverbal reading. Excellent ideas for presenting concepts and design elements to students.

Newman, Thelma R. *Innovative Printmaking.* New York: Crown, 1977.

A comprehensive introduction to all forms of fine art printmaking including photosensitive processes.

Newman, Thelma R., and Newman, Jay Hartley. *The Container Book.* New York: Crown, 1977. O.P.

Excellent idea and "how-to" book about containers in just about every medium possible.

Nicolaides, Kimon. *The Natural Way to Draw: A Working Plan for Art Study.* Boston: Houghton-Mifflin, 1941.

Excellent in point of view and for an understanding of the motivation behind the act of drawing. Most exercises are excellent with good student samples.

Ortega y Gasset, José. *The Dehumanization of Art.* New York: Doubleday, 1969. O.P.

Basic understanding and factual information about art history is a necessary prerequisite to understanding this book. The author has very interesting theories on the development of art forms and ways of seeing. The book is composed of five different essays.

Ovcirk, Otto, and others. *Art Fundamentals: Theory and Practice.* 5th ed. Dubuque, Iowa: Wm. C. Brown, 1985.

Each chapter discusses one art element in detail. The nature of art and forms of expression are also discussed.

Papanek, Victor. *Design for the Real World.* New York: Random House, 1971. O.P.

An industrial designer, Papenek takes his own profession to task for having misdirected its efforts in order to provide more attractive merchandise for the affluent customer rather than seeking design solutions that will benefit the greater and more deserving populations of underdeveloped countries.

Preble, Duane. *Man Creates Art Creates Man.* Berkeley: McCutchan, 1973. O.P.

Good motivational material on all phases of art for both student and teacher. Profusely illustrated. Good for elements and principles of design.

Quinn, Thomas, ed. *Coming to Our Senses.* New York: McGraw-Hill, 1977. O.P.

A book on the significance of the arts in education with a particular slant towards film and television as teaching tools.

Quirarte, Jacinto. *Mexican American Artists.* Austin, Texas: University of Texas Press, 1973. O.P.

History of the Mexican-Americans in the United States. Contains a chapter on traditional folk arts: *netablos, santos,* etc. Major portion of book deals with twentieth century Mexican-American art and artists. Contains color and black-and-white illustrations. There is a chapter on the mural paintings of Siquienos, Tamayo, Orozco, and Rivera, but most of the book is dedicated to twentieth century easel painters and sculptors.

Rainey, Sarita R. *Fiber Techniques: Knotting and Looping.* Worcester, Mass.: Davis, 1979.

Combines macrame, crochet, and knotting to produce many different techniques. Clearly written. Profusely illustrated.

Reinhold Visuals. *Portfolios* 1-10. Fort Atkinson, Wisc.: NASCO.

Each portfolio contains 24 poster-size photos and art reproductions which illustrate a particular art concept. Order from NASCO, 901 Jamesville Ave., Fort Atkinson, Wisc. 53538.

Reed, Carl, and Towne, Burt. *Sculpture from Found Objects.* Worcester, Mass: Davis, 1974.

Stimulating ideas for making sculpture from a variety of pre-formed material.

Robinson, Sharon. *Contemporary Basketry.* Worcester, Mass.: Davis, 1978.

Excellent color illustrations.

Ross, George F., ed. *Speedball Textbook for Pen and Brush Lettering.* 20th ed. Long Beach, N.Y.: Landau Book Co., 1973.

A variety of letter styles for pen and brush. An approved textbook.

Russell, Francis. *The World of Durer.* New York: Time-Life Books, 1967.

Deals with the life and times of Durer. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Russell, John. *The World of Matisse.* New York: Time-Life Books, 1969.

Deals with the life and times of Matisse. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Seiber, Roy. *African Textiles and Decorative Arts.* New York: Museum of Modern Art, 1972. O.P.

Catalogue of exhibition. Text and illustrations constitute an introduction to African textiles and decorative arts, particularly costume and jewelry.

Schickel, Richard. *The World of Goya.* New York: Time-Life Books, 1968.

Deals with the life and times of Goya. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Schneider, Pierre. *The World of Manet.* New York: Time-Life Books, 1968.

Deals with the life and times of Manet. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

——. *The World of Watteau.* New York: Time-Life Books, 1967.

Deals with the life and times of Watteau. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Shade, Richard T. "Introducing Photography to Gifted and Talented Students," *G/C/T.* Nov. /Dec. 1980, pp. 55-59.

Describes procedures for making a pinhole camera from an oatmeal box. Also briefly discusses developing procedures and the use of film and video.

Shaw, Susan. *Overexposure: Health Hazards in Photography.* Carmel, Calif. The Friends of Photography, 1983.

An analysis of black-and-white, color, and photo printmaking materials and processes.

Shorewood Reproductions, *The Shorewood Collection.* New York: Shorewood Reproductions.

Over 800 reproductions of paintings and drawings. Order from Shorewood Reproductions, 475 Tenth Ave., New York, N.Y. 10018.

Snyder, John. *Commercial Artists' Handbook.* New York: Watson-Guptill, 1973.

An encyclopedic compendium of graphic arts materials with a brief description of each, how to use them, and where to buy them.

Speight, Jerry. "A Basic Photography Program," *School Arts,* May 1981, pp. 28-41.

A description of a short course in photography. Shadowgrams, contact printing, and enlargements are discussed.

Spencer, Harold. *The Image Maker, Man and His Art.* New York: Charles Scribner's Sons, 1975. O.P.

In the back of this book are synoptic tables that list parallel events in history. The list includes political, social, and religious history, science and technology, literature and drama, architecture, painting, and sculpture. A useful source of background information for teaching art history.

Thalacker, Donald, ed. *The Place of Art in the World of Architecture.* Ann Arbor, Mich.: R. R. Bowker, 1979.

An architect reviews the federal government's massive public art program which began under President Kennedy.

Timmons, Virginia Gayheart. *Painting: Ideas, Materials, Processes.* Worcester, Mass.: Davis, 1978.

Approaches painting from the student's standpoint. Clear and concise directions for each of the painting media. Well illustrated.

———. *Painting in the School Program.* Worcester, Mass.: Davis, 1968. O.P.

A good source of fresh approaches to the teaching of painting, including collage techniques, oil painting, and painting with crayons and chalk. Contains sections on classroom organization and evaluation.

Tomkins, Calvin. *The World of Marcel Duchamp.* New York: Time-Life Books, 1966.

Deals with the life and times of Duchamp. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Wallace, Robert. *The World of Bernini.* New York: Time-Life Books, 1970.

Deals with the life and times of Bernini. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

———. *The World of Leonardo.* New York: Time-Life Books, 1966.

Deals with the life and times of Leonardo. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

———. *The World of Rembrandt.* New York: Time-Life Books, 1966.

Deals with the life and times of Rembrandt. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Wasserman, Paul, ed. *Catalog of Museum Publications and Media.* 2nd ed. Detroit, Mich.: Gale Research, 1980.

A directory and index of publications and audiovisuals available from U.S. and Canadian institutions. Prices are included.

Wedgwood, Cicely V. *The World of Rubens.* New York: Time-Life Books, 1967.

Deals with the life and times of Rubens. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Wertenbaker, Lael. *The World of Picasso.* New York: Time-Life Books, 1967.

Deals with the life and times of Picasso. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

White, Jan V. *Graphic Idea Notebook.* New York: Watson-Guptill, 1981.

Inventive techniques for designing printed pages.

Williams, Jay. *The World of Titian.* New York: Time-Life Books, 1968.

Deals with the life and times of Titian. There is some critical analysis, but mostly basic factual information. The reproductions are excellent.

Willett, Frank. *African Art: An Introduction.* New York: Oxford University Press, 1971.

Classic reference. Profusely illustrated text.

Wilson, Forrest. *Architecture and Interior Environment: A Book of Projects for Young Adults.* Cincinnati, Ohio: Van Nostrand Reinhold, 1972. O.P.

Describes simple classroom projects that can lead to a better understanding of structural principles, scale, space, an environment.

Wingert, Paul. *American Indian Sculpture: A Study of the Northwest Coast.* (reproduction of 1949 edition.) New York: Hacker Art Books, 1976.

A comprehensive study of wood sculpture from a little-known area—southern British Columbia

and northern Washington coasts.

Winterburn, Mollie. *The Technique of Handbuilt Pottery.* New York: Watson-Guptill, 1977. O.P.

All aspects of handbuilt pottery construction are discussed and illustrated in this book along with pertinent historical examples of Neolithic, Egyptian, and Pueblo techniques.

Filmstrips and Slides

"Appreciating Abstract Art," Educational Dimensions.
"Appreciating Representational Art," Educational Dimensions.
"Art and the Masters," Doubleday Multi Media.
"Basic Drawing: Drawing with Line," Educational Dimensions.
"Creative Batik," Warner Educational Productions.
"Drawing Basics," Educational Dimensions.
"Drawing People," Educational Dimensions.
"Kinetic Art," Educational Dimensions.
"Modern Sculpture," Visual Publications.
"20th Century American Art—Representational Tradition," Educational Dimensions.
"20th Century Sculpture Series," E.A.V.
"Understanding Pop Art," Educational Dimensions.

MCPS Films

F-3312 *Animal Habitats.*
F-1037 *Art and Motion.*
F-5267 *Art from Found Materials.*
F-7800 *Art in America: Sculptures.*
F-0051 *Arts and Crafts of Mexico: Pottery and Weaving.*
F-5533 *Basketmaking in Colonial Virginia.*
F-6379 *Batik.*
F-4280 *Chairy Tale.*
F-4613 *Clay: Or, the Origin of Species.*
F-4380 *Color and Pigment in Art.*
F-2124 *Discovering Color.*
F-5650 *Discovering Harmony in Art.*
F-2728 *Discovering Line.*
F-2126 *Discovering Texture.*
F-0800 *Dong'Kingman.*
F-5211 *The Dot and the Line.*
F-5737 *Enameling.*
F-5602 *Exploring Relief Printmaking.*
F-7217 *Hands of Maria.*
F-6706 *Handy Dandy Do-It-Yourself Animation Film.*
F-7144 *Henry Moore: Master Sculptor.*
F-4455 *Introduction to Contour Drawing.*
F-5165 *Introduction to Sculpture Methods.*
F-6381 *The Kinetic Sculpture of Gordon Barlow.*
F-7672 *The Light Fantastick.*
F-6076 *Macrame.*
F-1107 *Make a Mobile.*
F-7798 *Mindscape.*
F-7946 *Mobile.*
F-5363 *Pas de Deux.*
F-7178 *Pysanka, the Ukranian Easter Egg.*
F-7641 *Sculpture: The Forms of Life.*
F-1102 *Textiles and Ornamental Art of India.*
F-6260 *Watercolor Painting: The Marine Scene with Herb Olsen.*
F-5895 *Weaving.*
F-6378 *Weaving with Looms You Can Make.*
F-6380 *With Fabric and Thread.*
F-1645 *Working with Watercolor.*